



Lord and Lady Denning chat with Mr John Pomberton, librarian, after the opening of the Denning Law Library at the University College at Buckingham.

Lord Denning sees new library as aid to rule of law

by Jane Fohmann

Members of the legal profession were urged by Lord Denning, Master of the Rolls, this week to give their support to the new Denning Law Library at University College, Buckingham.

He was speaking at the official opening of the library. The majority of 160 students of the private college study law, and more than half are from overseas.

Lord Denning said that law had always stood for the freedom of the individual against the authority of the state and other powerful bodies. The legal profession should dedicate itself to the wellbeing and expansion of the library, "a truly free and independent venture".

An extensive law library was particularly important during this

More health and safety courses to be urged at TUC

by David Walker

A bigger role for further education colleges in training for health and safety at work will be urged at the TUC next week by the National Association of Teachers in Further and Higher Education.

Further education teachers still hope to persuade the TUC, meeting on Blackpool, to adopt a programme to fill in gaps in the training of the health and safety at work. Their motion calls for more training courses, better opportunities to study aspects of the law, and fuller cooperation between trade schools in the various committees established under the Act.

Concern about the future of further education colleges is reflected in another submission by the NATFHE to the TUC. It asks for TUC pressure on the Government to ensure that despite the run down of the places training full use is made of providing educational courses for girls and women.

The main focus of next week's meeting of the TUC will be on unemployment, and particularly unemployment among school-leavers and young people. Debate will revolve around a long motion from the National Union of Teachers which urges the Government to take a "comprehensive" view.

The teachers ask for mandatory maintenance allowances for all who wish to stay on at school or go to colleges after the age of 16. For these there should be day-release schemes and job training. To do

NEXT WEEK

New biography of William Beveridge.
DES computer methods.
Michael Posner on energy research.
Lewis Elton on schools and universities.
John Weightman reviews the second volume of Theodore Zeldin's history of modern France.

Languages and sciences link is recommended

by Frances Gibb

Language departments in traditional universities should offer more joint study languages with science projects, a working party has recommended.

In a report published this week, it says there should be a more systematic approach to language teaching in universities, with greater emphasis on oral proficiency and the study of the contemporary language.

In schools and commerce there is increased demand for graduates with two modern languages, which universities would do well to meet. Some university departments also provide a rigorous study of the modern world in its economic, social and political dimensions, the report adds.

The working party, which has been studying modern languages in secondary and higher education in the East Midlands, was set up last September under the chairmanship of Professor R. H. Tate, of the faculty of arts at Nottingham University.

It was to discuss the changes taking place in modern language teaching at all levels. It met with language advisers from nearby colleges, headmasters and teachers from local schools and lecturers from Trent Polytechnic.

Some of the concerns which prompted the setting up of the working party were the decline of language teaching, other than in applications to most modern lan-

Clash over entry closes course

by David Walker

North East London Polytechnic is to examine its staffing needs in the wake of the decision to close its two-year social work qualification course to see whether staff can be redeployed to teach other courses.

Dr George Brosnan, director, said this week that it was too early to consider redeploying staff. "We will carefully examine the consequential position and do our best to see how for the staff affected can be found other jobs", he said.

An statement from the staff's trade union, the National Association of Higher Education, spoke of their "difficult position" and promised action to protect their jobs.

Dr Brosnan formally closed the polytechnic's Certificate of Qualification in Social Work course last week after receiving a letter from the chairman of the joint education committee through which the polytechnic is run. In the letter, Alderman G. Edwards said that if Dr Brosnan was convinced there was no chance of the Newham borough employing the staff of the course without delay, the other students were to be notified of its closure.

Earlier, Dr Brosnan had heard from the Control Council for Education and Training in Social Work, the body responsible for validating the application of courses that Vyne, the Newham employee bureau, was properly processed and the suitable. When the council could not allow his admission to the course.

This week officials of CCETSW were trying to contact students. Later this month an effort will be made to get them placed on other social work training courses.

Leader, page 10

Work permits cut for lecturers

Universities and polytechnics will find it more difficult to employ foreign lecturers in future because of stricter control on the issue of work permits by the Department of Employment.

A DfE spokesman said this week that because of the high level of unemployment in Britain fewer work permits could be issued in order to protect the home labour market.

The DfE is making inquiries about the recent appointment of a Canadian to a university lecturing post. The university encouraged to state that there was not a British applicant who could have done the job adequately, and to submit a copy of the advertisement. The Department has no legal power to make such inquiries of universities or polytechnics.

Mr Laurie Snapper, general secretary of the AUT, said: "This tight control of the whole education of the British university system, which has derived an important benefit from people from all over the world, Universities are and always have been international organisations."

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Leader, page 10

Not such a gloomy future after all

Future research on the effects of drugs on the brain is being carried out by a team of scientists at the University of London.

The team, led by Professor P. C. Roberts, is charged with research for the interdisciplinary research and social progress of the Department of Science and Technology. The team is producing a model, known as SAR, that generated less dramatic findings than the early decades of the next century.

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Elections study

The first full-time election study in Wales will be carried out by students of the University of Wales, Aberystwyth. A team from the Department of Political Science led by Professor Peter Midgwell and Mr Dennis Blythe will carry out the study. The Social Science Research Council has given a grant of £18,651.

Correction

A new computer model to provide information on administrative and school teachers' time has been developed by the Department of Education and Science, not the Social Science Research Council, as stated in last week's edition of *The Times*.

The British Association meeting—CLIVE COOKSON reports



Drugs 'prescription' for pollution

Psychotropic drugs are being used on a large scale in Britain and are causing a "pollution" of the mind, says Dr. Warburton, reader in Psychology at Reading University, in a paper presented at the meeting.

He blamed this on the "prescription" of sleeping pills, tranquilizers and antidepressants—on doctors (for their patients) and on the public (for their own ailments). "For many years in Britain and other countries, the use of these drugs has increased steadily," he said. "The use of these drugs has been a major factor in the decline of the mind."

Dr. Warburton said that the use of these drugs has led to a "pollution" of the mind, which he defined as a state of mind in which the individual is unable to think clearly and to make rational decisions. He said that this "pollution" is caused by the use of these drugs to relieve stress and anxiety, and that it leads to a loss of individuality and a loss of the ability to think for oneself.

Dr. Warburton called for a "prescription" for pollution, which he defined as a set of guidelines for the use of these drugs. He said that these guidelines should be based on the principle of "least harm," and that they should be designed to minimize the use of these drugs while still providing relief for the individual.

DES threatens to intervene over in-service failure

by Sue Reid and Peter Wilby

The Government will be forced to intervene in a system of direct funding for in-service teacher training if local authorities refuse to allocate the necessary resources for this important area, Mr Gordon Oakes, Minister of State overseeing higher education, warned this week.

In a speech at the future of Britain's teachers he said that if local authorities decided that in-service training would be printed it would be a dangerous and mistaken plea.

Mr Oakes, speaking at a National Union of Students conference in Edinburgh, said that the quality of teachers was now dependent on the teaching force's ability to extend and reinforce skills an apprentice for new responsibilities.

The Government attached high priority to the expansion of in-service training and planned to spend more money on it. It was, he added, vital to the maintenance and improvement of the education system.

"Therefore, if local authorities seem unwilling or unable to apply the scale of resources necessary for the development of in-service training, the Government may well have to consider some form of direct funding for this work to give it the priority it requires."

The intervention of the teaching force would, he warned, severely affect the prospects of pupils who had not traditionally fared three quarters of the entry to training. "The training intake has dropped from 30,000 in 1975 to about 12,000 this year and should level off at around 10,000 in 1978. Applications have fallen in roughly the same proportion as the 1976 entry and the figures for higher and further education are slightly higher than expected," said Mr Oakes.

Colleges of education are finding

Study predicts dismantling of binary barrier

The barriers between universities, polytechnics and colleges are likely to be dismantled over the next few years, according to predictions made by three British educationalists in an unpublished study, *Purposes, Policies and Prospects*, published by the International Development Council for Educational Research in New York.

The study suggests that the differences between the various parts of higher education are likely to disappear. The binary barrier between universities and polytechnics will be progressively blurred.

The authors of the study, Professor Maurice Kogan of Brunel University, Professor Tony Hughes of the University of London, and Dr. John H. Kilgus of the University of New South Wales, predict that the differences between the various parts of higher education are likely to disappear. The binary barrier between universities and polytechnics will be progressively blurred.

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Governors form rival body

A new association of polytechnic governors, designed to act as a counter to the growing strength of local education authorities is likely to be established formally next month.

Approval for the body, which will inevitably receive a cool reception from the Committee of Directors of Polytechnics, is expected to come at a top-level seminar of polytechnic governing body representatives and directors at County Hall, London.

A working party to investigate ways of establishing a national forum of governing bodies was set up in February at a special meeting sponsored by the North East London Polytechnic. It has met regularly since and has drawn up a series of recommendations for next month's seminar.

A draft constitution for the proposed association has been written up and the County Hall seminar approves the idea. The proposed association will be the policy-making body for the polytechnic sector.

Multiplicity of maths courses criticized

by Clive Cookson, science correspondent

The multiplicity of A level mathematics syllabuses with almost no common content set by the examining boards in Britain is causing serious problems for university mathematics departments, Professor John Crank, vice-chancellor of Brunel University, claimed at the British Association meeting this week.

He told the BA mathematics section that General Certificate of Education boards had more than 50 different mathematics syllabuses. They should remedy this by introducing a common core of traditional mathematics into all A level syllabuses. There was, he added, a surprising measure of agreement in universities about what the core should contain.

"Not only do the syllabuses differ or by stress on different approaches but an A level awarded on one syllabus is no guarantee that a candidate is competent in any given topic in that syllabus. A situation can arise where two candidates with A levels from the same board have almost no knowledge in common."

Professor Crank, head of maths at Brunel University, warned: "The problem facing maths departments is formidable. There is not the time in a university course to cover every required A level topic again in a first year course. It is essential to do some kind of compromise to be successful."

Some of the departments assumed all entrants had a reasonable knowledge of certain topics, while knowing this was not actually the case, and used the as a base. The 20 per cent of students who were not well versed in the topics eventually asked for help and were given reading lists and extra tuition.

Other universities, including Brunel, give all entrants a test in their first weeks and compel those with serious gaps in their knowledge to attend remedial courses.

"But such remedial courses tend to break down when more than 20 per cent are deficient in some aspect required in the first year. It is then necessary to water down the undergraduate course to fit in topics that should have been covered in the sixth year."

Professor Crank specifically named the School Mathematics Project as a cause of trouble. He said each new modern mathematics syllabus increases the problems at first year university level.

He showed slides of the core topics in the different departments and Brunel, he believed should be known by all A level candidates. They were remarkably similar.

Leader page 12

Dr Thistlethwaite to head IUC

Dr Frank Thistlethwaite, vice-chairman of the University of East Anglia, has been appointed chairman of the Inter-University Council for Higher Education Overseas, for the period 1977 to 1980.

Dr Thistlethwaite, who has been vice-chairman of the University of East Anglia since 1974, was appointed chairman of the IUC at a meeting in London last week. He will be the first British to hold the post.

The IUC is a body of 15 universities from 12 countries, which was set up in 1969 to coordinate the work of the British Council in the field of higher education overseas. It is a non-profit-making organization, which is financed by the British Council and the universities themselves.

Dr Thistlethwaite's appointment is a recognition of his long and distinguished service to higher education in Britain and overseas. He has been vice-chairman of the IUC since 1974, and has been a member of the Council since 1971.

Research park

Michael Dinyon visits Research Triangle Park in North Carolina which houses research laboratories of some of the most prestigious organizations in the US.

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Contents

French history



John Weightman reviews the second volume of Theodore Zeldin's *France 1848-1945—Intellect, Taste and Anxiety*. 14

Remedial work

Lewis Elton argues that it is possible for universities to adapt to variation in first-year undergraduate standards. 7

Computer records

Clive Cookson examines the DES statistical record which will provide information about two million students in further education. 6

William Beveridge

David Walker talks to José Harris author of a full-scale biography of William Beveridge. 6

Engineering education

Stanley Hutton and Peter Lawrence of Southampton University question whether the British Association report on engineering education went far enough. 7

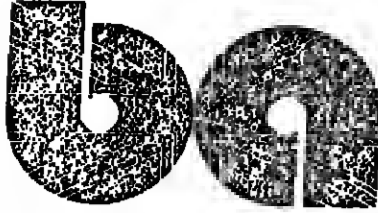
Research park

Michael Dinyon visits Research Triangle Park in North Carolina which houses research laboratories of some of the most prestigious organizations in the US. 10

Noticeboard

Don's diary 5
Letters 5, 12
North American news 10
Overseas news 11
Books 14-17
Classified Index 18

Clive Cookson, science correspondent, reports on the British Association annual meeting



Quality in schools reviewed

The education sector spent the week discussing ways of improving the quality of education in schools, under the presidency of Mr Alfred Yates, director of the National Foundation for Educational Research.

Universities came into the picture, however, during Mr Yates's presidential address, in which he considered the contribution of education research.

Firstly, he said, communications between researchers in universities and other institutions and practical policy-makers—need to be improved. There is still distrust and misunderstanding between the two groups, though relations are not as bad as a few years ago.

"Any failure to disseminate research findings cannot be attributed to lack of effort on the part of researchers to publicize their activities," Mr Yates said. "Indeed, it would be very difficult to disseminate research from rushing into print as soon as—and sometimes before—they have any positive findings to report. A steadily increasing list of published books and articles is as vitally necessary to a researcher's sense of well-being as an accumulation of profits is to that of a businessman."

Mr Yates said researchers have come more than halfway to meeting the needs of their customers, and practitioners should make a corresponding effort to learn the purposes, methods and concepts of educational research. "For the older practising teacher or administrator this calls for a bit of hard reading or attendance at an in-service course or two."

Communication in the reverse direction—teachers telling researchers what they should be investigating—is making good progress. But Mr Yates emphasized the need for more basic research prompted solely by intellectual curiosity having as its prime aim the achievement for its own sake of a deeper understanding of educational events and processes. Those engaged in this kind of research have an unquestionable right to be free of any kind of direction or interference.

He later drew attention to "an unhealthy imbalance between research and development." Too much extra money had been devoted to the latter, he said. In the long run, Mr Yates said, the distinction between researchers and practitioners should blur as closely together. Research organizations will eventually serve mainly as resource centres, and research itself "will be effectively carried out in situ by those close to the problems under review."

Universities urged to drop physics for entry

Two key recommendations of the British Association of Engineering Education, Engineers and Manufacturing Industry that university engineering departments should stop demanding A level physics and that institutions should monitor the practical training of individual graduate engineers came under attack when the report was discussed at an open meeting at Asun this week.

Much of the opposition came, not surprisingly, from the professional institutions, whose role would be limited to monitoring engineering courses, rather than the progress of individuals, if the report was implemented.

For instance, Dr Ewen McEwen, immediate past president of the Institution of Mechanical Engineers, said the report was oriented too much towards industry. Universities would never be able to maintain a consistent policy on engineering training; some would wash their hands of all responsibility for overseeing the training of graduate engineers.

Mr G. A. Dunnet, immediate past chairman of the Council of Engineering Institutions, thought it would be impossible to make universities responsible for the training of their graduates in industry. Several other engineers doubted whether their academic colleagues could supervise practical training.

Few speakers welcomed the report's recommendation that university engineering departments should increase their pool of potential applicants by 50 per cent by demanding maths and any other

good A level, rather than maths and physics as at present.

A teacher said that dropping the physics requirement would further reduce the status by driving the impression that engineering was lowering its entrance standards. He doubted whether many sixth formers, without physics, would want to study engineering.

A woman electrical engineer said it would be disastrous to drop physics on a perception basis. She also challenged an assertion by Dr Joe Pope, vice-chancellor of Aston University and director of the BA investigating team, that the attitudes of individuals, if the report was implemented, were responsible for putting girls off engineering.

She said employers had put no barriers in front of her. But going into schools to talk about engineering, "I found that teachers are terrified if any of their girls want to take it up. Teachers are very familiar with the other professions, but very few of them know what an engineer does."

She was supported by Dr McEwen, who said he had asked women members of the three big engineering institutions how they thought the image of engineering as a female occupation could be improved. About 80 per cent said attitudes of school teachers were critical and 20 per cent thought attitudes needed to change in industry.

Mr Moneybags, chairman of the BA coordinating group, said the BA coordinated survey, and chairman of the forthcoming Government inquiry into engineers.

Attempts to raise engineering education's status criticized

Attempts to increase society's effective use of technology by raising the status of engineering education and of the engineering profession are misguided, according to Dr G. L. Price of the Department of Liberal Studies at Manchester University.

Such moves are likely to prove less effective than strengthening links between institutions of advanced technological education and the pattern of research and development of industrial patrons.

Addressing the sociology section, Dr Price suggested that there were two principle ways of looking at the relationship between professional groups and their "clients". The first has been widely observed, as an independent result. Properly to understand, interpret and evaluate the result of an inquiry or experiment, we need to know the methods used to obtain it.

Mr Yates said researchers have come more than halfway to meeting the needs of their customers, and practitioners should make a corresponding effort to learn the purposes, methods and concepts of educational research.

Confusion surrounds role of nurses

Confusion surrounds the role and education of nurses in the National Health Service, Professor Annie Altschul, Professor of Nursing at Edinburgh University, told the general session.

"Of all health professions, nursing alone has allowed itself to be deprived of a properly organized future for physiotherapists, occupational therapists and staff of homes providing residential care are now being trained under the educational difficulties of nursing."

Attempts to raise engineering education's status criticized

In the immediate post-war years, for example, such a policy had been suggested by the Percy report on higher technological education, published in 1945, and subsequently by the National Council for Education in Industry and Commerce.

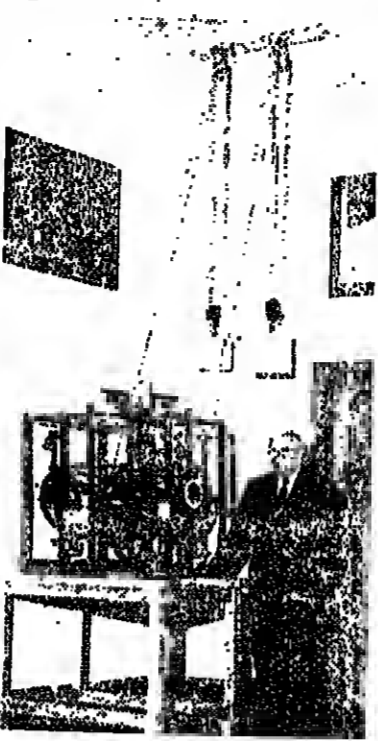
These policy options, however, had been abandoned by supporters of the alternative approach, such as the Barlow report on scientific manpower published in 1946, and later by the Advisory Committee for Scientific Policy's campaign to no manpower resources for science and technology.

The latter approach had stressed the need to train personnel in the type of knowledge peculiar to the scientific profession, resulting in educational ideals that emphasized high levels of occupational autonomy.

The strength of the consensus among industrialists and institutions in the years of post-war planning effectively constituted a strong increase in the level of demand for Price said.

The effect of the post-war consensus was temporarily to raise the level of public trust in the social value of this particular social occupational group, and to facilitate its professional autonomy.

Dr Price said that the latter educational policy, stressing the need for close contact between technological education and current theoretical work in the sciences.



A replica of the oldest existing clock in England was set in motion at a ceremony at Aston University during the British Association meeting. It will commemorate the work of Almir Eder, senior pro-vice-chancellor of the university between 1972 and his death in 1975. The replica is the original in Salisbury Cathedral, which was built in 1385. It has been made by Mr William Capel, a fellow of the Institute of Mechanical Engineers and past chairman of the British Horological Institute, who is pictured beside the clock.

Symposia cross boundaries

The British Association has times been criticized at meetings for carving up important scientific issues arbitrarily into its traditional symposia series. This year's organizers responded by arranging three interdisciplinary symposia outside the framework.

Biochemists, psychologists and scientists spent a day discussing a symposium on "Language, Research and Social Organization" at Aston University. The programme was arranged by Professor Cook's symposia committee.

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Hierarchies 'may impede research'

Social hierarchies within the scientific community may impede the development of research by discouraging flexibility and impeding the transmission of important new ideas, according to Mr Alex Halsey of the University of Kent, addressing the sociology section in Monday.

But although it might be undesirable to encourage the hierarchical tendencies of science by institutionalizing them fully, it was difficult to have a social control work without at least some of them.

"In the distribution of resources for research, the present system of relying on the judgment of committees of leading scientists seems to have gone wrong in the world of science, and it is not clear how to do it better."

Mr Dolby said that an institutionalized hierarchy might offer rewards to those seeking recognition and greater visibility in the most accomplished of scientists.

It also tended to produce elitist groups who associated themselves with one another, perpetuating themselves by recruiting primarily from their own elite students.

In contrast, social systems of science in which less power was concentrated in formal institutional hierarchies provided greater variability in the nature and content of the scientific elite.

Avoid police conflict in racism fight, NUS told

by Douglas Morrison

An appeal for students to attack the evil of racism without tactics leading to police conflict opened the National Union of Students' conference on teacher education held at Heriot-Watt University this week.

Ms Sue Shinnon, the president, spoke on the fight against racism because she believed it to be the most frightening issue facing the country and because of the contribution students could make.

She dismissed the tactics of confrontation since have used against the National Front because they were naive and led to destructive action and she challenged all those opposing racism to reject politically the Fascist alternative.

The blindness of those who saw the police and National Front as interchangeable was amazing, she said. There were good and bad elements among the police but it was playing into the hands of those who wished to limit democratic rights to force policemen into attacking demonstrators because they themselves were attacked for protecting the NF.

Government urged to seek new initiatives for deprived

by Sue Reid

The National Union of Students this week urged the Government to seek new initiatives to combat racial deprivation in the education system.

The NUS maintained that all educational institutions should be open to all students and that the role of post-school education in challenging racial practice, in the particular areas of curriculum and employment, should be clearly defined and made in meeting the needs of black youth.

There was a vital relationship between teacher training and curriculum development and both initial and in-service training should include the role of the university in further education, in particular in the field of post-school education.

The submission concluded: "In all sectors of NUS membership including further education, technical education, colleges of education, polytechnics and universities, we will be asking students' unions and college authorities to declare an institutional commitment to fighting racism."

Cambridge 'may get most'

Cambridge University may suffer a greater cut in its income in 1978/79 than any other universities. This warning is contained in a new survey sent recently to all 3,000 voluntary (non-academic) staff by the university's Assistant Staff Office, the personnel office.

The provisional figures which the University Grants Committee has announced for the years up to 1981 will not doubt take account of the relative increases in student numbers, it says.

Serious flaws found in sixth form mathematics teaching

by David Walker

Research into student achievements in mathematics was one of the main concerns of the academics, teachers and examination board administrators attending the annual conference of the British Educational Research Association in Nottingham this week.

Professor Lewis Elton, of the Institute for Educational Technology at Surrey University, reported serious flaws in mathematics teaching in the sixth forms of schools and in the early years at university.

One problem concerns the speed with which students lose their mathematical knowledge in the few months that, for most people, separate school from university. Professor Elton said survey evidence showed that 60 per cent of students substantially in their mathematical knowledge between June and September.

Although this can be reversed by remedial teaching in the first year at university, Professor Elton warned that this reversal had "serious consequences". He concluded that "a new kind of teacher" is needed in the secondary schools: "one who has been made to feel at home with the way that mathematics is used as well as what mathematics is, long before he learns how to teach it."

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Bristol students 'may miss stimulating talk'

Sixth formers may be disappointed by the low level of stimulating discussion at university, a prospectus by students at Bristol University warns.

If a sixth former is really interested in a subject available at university level, Bristol could be a "great place" to become immersed in it, it says.

But you may be disappointed by the low level of intellectual activity and stimulating discussion which goes on among students.

Many did not seem that interested in their subjects. They wanted a degree for some vocational reason or because it seemed the right thing to do. Some wanted an opportunity for all-round development which university life offered.

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Academic left 'is untypical'

Labour Party academics are often untypical of Labour voters in their political interests, according to the author of a Fabian Society pamphlet published this week.

In a study of Labour Party organization Miss Dianne Haxton, general secretary of the Fabians, found that many Labour Party activists were teachers and lecturers. They joined the party partly because of an affinity to private industry, and partly because teaching and academic work has traditionally been an escape route from manual labour for the "bright kids" of the working class.

What she means is that Labour Party activists have almost a vested interest in the public sector which may have more to do with their own experience than with their socialist beliefs. It is partly for this reason that there has been a hesitancy in the party to submit the efficiency of the public sector to public scrutiny.

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10,000 places in UCCA clearing system

by Frances Gibb

About 10,000 sixth formers may go through the clearing system run by the Universities Central Council on Admissions, the council has estimated.

The system, now in full swing after publication of the A level results, seeks to match unplaced candidates with unfilled places. In its regular annual advertisement in the national press UCCA has given details of subjects where there are still vacancies.

These include: education, pharmacology, nursing, engineering, psychology (all courses), economics, foreign languages, physics, philosophy, general and combined arts, sciences and engineering.

Subjects which are oversubscribed include: medicine, dentistry, pharmacy, surveying, forestry, accountancy, law, architecture, drama, fine art and veterinary science.

Candidates in places are more or less balanced in electrical, mechanical, engineering, agriculture, geology, biological sciences, business management, geography, politics, history, English, archaeology, music, social studies and psychology.

Last year psychology was oversubscribed, but this year its places are evenly matched with candidates. The reverse is true for pharmacology.

The clearing system is currently coming with about 12,000 home candidates who have failed to gain the required A-level grades or who were not made an offer originally and now think they stand a chance.

The existence of unfilled places at this time of year is frequently misunderstood, UCCA says. Universities cannot fill all the places which confirm conditional offers because candidates do not distribute their applications in a way which exactly matches the distribution of available places.

Second, selectors cannot forecast precisely how many candidates will satisfy their conditions. And as they cannot risk exceeding their quotas they will tend to underestimate.

BMA advises junior doctors not to answer questionnaire

The British Medical Association is advising junior doctors appointed to training posts at Guy's Hospital not to complete a hospital questionnaire seeking detailed information about their physical and mental health and drinking habits.

Mr Tony Colay, secretary of the BMA junior hospital staff committee, who has written a protest letter to Guy's about the form, said it was unacceptable not only because of the personal details it required but also because of the way the young doctor gave the hospital permission to approach his physician to obtain additional medical information.

10,000 places in UCCA clearing system

by Frances Gibb

About 10,000 sixth formers may go through the clearing system run by the Universities Central Council on Admissions, the council has estimated.

The system, now in full swing after publication of the A level results, seeks to match unplaced candidates with unfilled places. In its regular annual advertisement in the national press UCCA has given details of subjects where there are still vacancies.

These include: education, pharmacology, nursing, engineering, psychology (all courses), economics, foreign languages, physics, philosophy, general and combined arts, sciences and engineering.

Subjects which are oversubscribed include: medicine, dentistry, pharmacy, surveying, forestry, accountancy, law, architecture, drama, fine art and veterinary science.

Candidates in places are more or less balanced in electrical, mechanical, engineering, agriculture, geology, biological sciences, business management, geography, politics, history, English, archaeology, music, social studies and psychology.

Last year psychology was oversubscribed, but this year its places are evenly matched with candidates. The reverse is true for pharmacology.

The clearing system is currently coming with about 12,000 home candidates who have failed to gain the required A-level grades or who were not made an offer originally and now think they stand a chance.

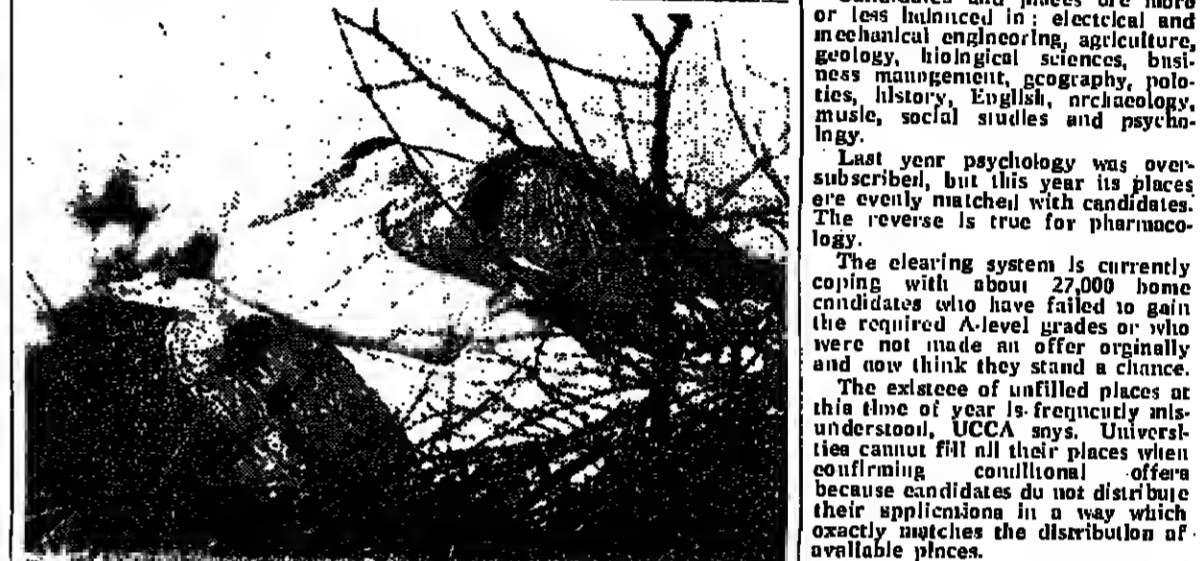
The existence of unfilled places at this time of year is frequently misunderstood, UCCA says. Universities cannot fill all the places which confirm conditional offers because candidates do not distribute their applications in a way which exactly matches the distribution of available places.

Second, selectors cannot forecast precisely how many candidates will satisfy their conditions. And as they cannot risk exceeding their quotas they will tend to underestimate.

SSRC overflows with oil funds

The Social Science Research Council has a surplus of funds available for research into how North Sea oil is affecting Scotland.

It set up a panel to discuss research grants in 1975, since when it has allocated £55,000. A further £84,000 is available for projects during the next two years. It is understood the panel, under the chairmanship of Professor Fred Meritt of Glasgow University, has had to canvass applicants. Those interested should contact the panel at 18 Bute Gardens, Glasgow G12 8RS.



"Heron, Mating" (above) is part of an exhibition of wildlife photography by Ian Cuvillier which is currently on show at the Hunterian Museum, Glasgow University. The exhibition, "A Part of It All", aims to break away from the traditional role of wildlife photography.

BMA advises junior doctors not to answer questionnaire

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The N & F Proposals: What do they mean for Nuffield Science?

The proposed N and F courses would radically alter education in six high forms. What are the implications of the proposals for science teaching - in terms of laboratory work, 'breadth' versus 'depth', interdisciplinary opportunities, or examinations?

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Trials of centralising records

Some of the statistics on the right are now part of a DES central data bank, as Clive Cookson reports

Individual computer records on all two million students in Britain's polytechnics and major further education establishments are at last ready for analysis by the Department of Education and Science.

The introduction of the Further Education Statistical Record (FESR) has taken almost a decade. After an investigation by a working party in the late 1960s successful pilot schemes in 1969 and 1970 showed that a centralised data collection would be worth developing.

The trials were extended in a voluntary basis over the next two years and in 1972 about 20 per cent of the 600 colleges were included. It was then decided to introduce the FESR system in all colleges over the following two years which had to be extended to four years mainly because of local government reorganisation, the DES said.

November 1976 was eventually set as the date by which all polytechnics and further education establishments, other than former colleges of education, were to be included. The latter will be in by November 1977.

It is the November 1976 data that the DES's ICL 1906A computer is about to analyse. The delay is primarily the fault of a few colleges which submitted their returns many months late, according to the department. Definitive national statistics cannot be produced without a return from every further education institution. These delays in submitting data are further extended by the need to resolve teaching troubles and correct errors. What colleges have not used in the FESR they will have to excuse

for failing to send their returns to the DES data processing centre in Barnby-in-Road within a month of the annual census point, November 1. All they have to do is transcribe information from each student's enrolment form into machine-readable format: punched card, punched paper tape or magnetic tape.

Colleges are not required to do any calculation or computation—in contrast to the old system under which they had to work out their aggregate statistics and submit them on a census form. The DES sends each institution a computer analysis of its own data, as well as producing national statistics.

Each student's computer record includes this personal information: first name (surname if any); first two initials; sex; date of birth; area of home address, or home country for overseas students; type of employer, for part-time and sandwich course students; educational level. Details of the course being taken are also given.

All data submitted are subjected to "credibility and validity checks" by the DES computer. The machine throws out records containing incomplete, impossible or implausible information, and they are returned to the college for correction.

For example, if a student aged 19 is under 18 shown to be following a postgraduate course his or her record is rejected under error code 42. Error code 40 challenges any female student on a training course.

In 1970, under the pilot scheme, no less than 18 per cent of records were in error. By 1975 the error rate had been brought down to 2.7 per cent, though even that level represents 45,000 mistakes. Of the 431 colleges submitting data in 1975, only 27 gave completely clean data; a further 141 were correct after one reprocessing operation, but records from the remaining 313 had to be reprocessed twice or more in order to eliminate all errors, leading to considerable delay in the production of statistical analyses.

The DES is aware that some people may attribute sinister motives to the creation of a centralised computer file on every FE student in the country so it has produced a reassuring pamphlet explaining the purpose of the FESR. "The sole purpose of the FESR is to provide statistics. No information will be published which might allow any individual to be identified. From the records of individual students it will be possible to derive counts of the numbers on each type of course, and to develop statistics about how you and people like you make use of further education colleges", it says.

"Your record received by the DES for any particular year will be added to your record(s), if any, for previous years, to build up a continuous picture of your education. The anonymous statistics of individual progress pictures, when added together, will show generalised patterns of movement from course to course and of progress through the FE system."

The Government has guaranteed the privacy and confidentiality of the FESR. Only employees of the DES statistical service have access to the information. If anyone else is inadvertently employed in the department or elsewhere, wants to look at the records—perhaps for a research project—written permission will have to be obtained from each individual college.

Students who want to see what is on their own record can get a print-out of it for 50p through their college. Last year, however, only one person asked for his.

The FESR, which costs £130,000 a year to administer at present, may be extended to include data on occupation or first job after leaving college, and reason for leaving the course.

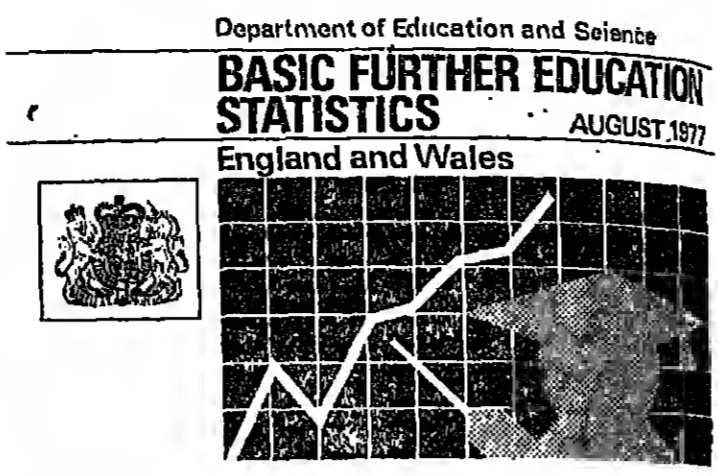
No information will be collected or added in your record about, for example, your religious or political beliefs or character, the DES promises students.

David Walker previews a book on Lord Beveridge

Emerging Parliament for a time as a liberal he spent the 1920s, like Lord Rethel the former director-general of the IBC, busy in taking part in government but never called.

For the middle and later part of his life Dr Harris could call on recollections of Beveridge by people still living—Lord Robbins, for example, taught at the LSE during most of Beveridge's tenure.

Beveridge was no pure academic though he did believe in the "force of disembodied good ideas". He was an able and manly citizen for he despised parties and relied entirely on the Parliamentary Verge of Churchill and Lloyd George to get his measures through. His own short time in Parliament on a day-to-day administrator Beveridge was a failure, Dr Harris says. "He had a curious kind of mind, not an academic, not a politician. There was a lot to be said for using Beveridge as a one-man think tank but politicians were right not to allow him to implement his own policies."

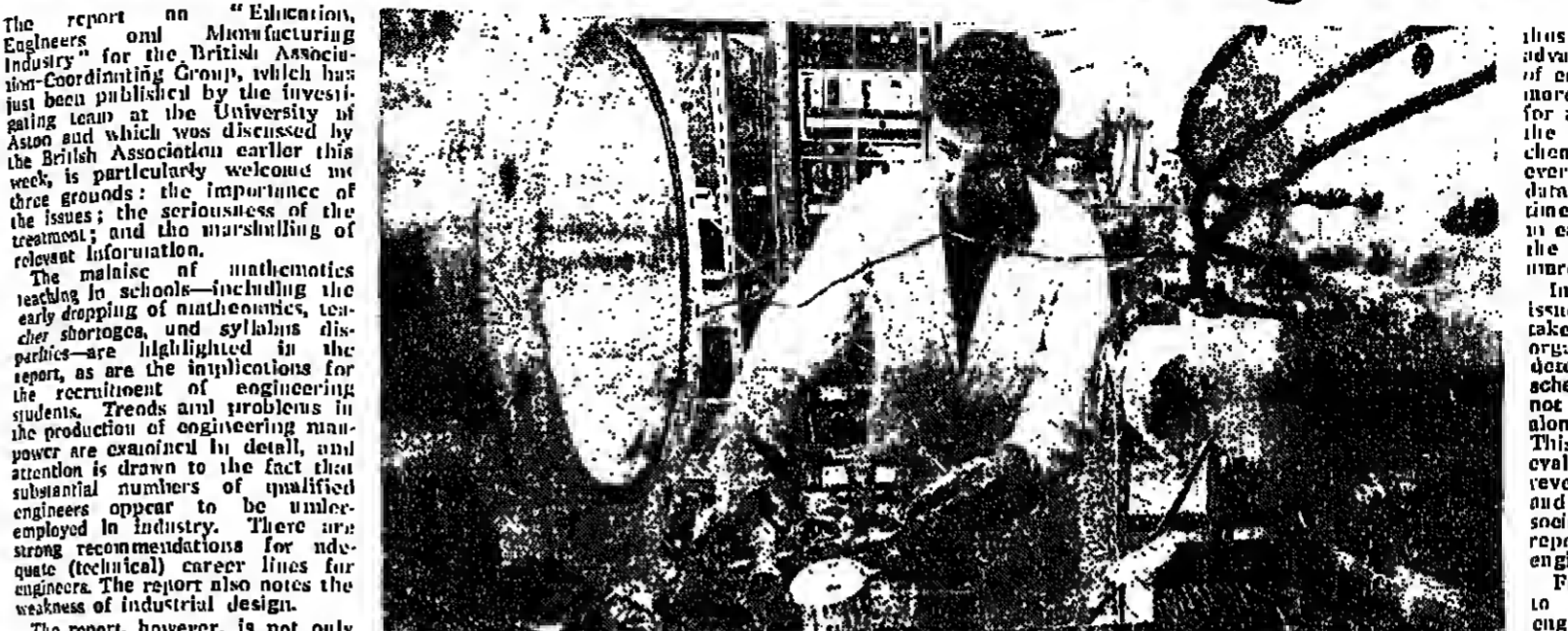


1967	1974	1976
NUMBER OF ESTABLISHMENTS		
Major		
polytechnic/regional colleges (*)	25	30
other maintained and direct grant	713	565
evening institutes independent, recognised as efficient	7,439	6,511
	91	102

1967	1974	1976	
STUDENTS (thousands)			
Major establishments			
full-time and sandwich	138.0	189.9	111
male	83.9	145.3	103
female	221.8	335.2	397.9
total	14.9	32.4	421
of which			
part-time day	571.1	489.1	487
female	169.7	237.8	264
total	740.0	726.9	743
of which			
day release	640.0	652.8	661
evening only			
male	385.3	316.4	313
female	425.9	485.7	483
total	811.3	782.1	804
evening institutes			
male	484.1	684.8	624
female	935.7	1,255.8	1,372
total	1,419.8	1,940.6	1,996
all grant-aided establishments			
male	1,570.5	1,579.2	1,685
female	1,815.2	2,108.7	2,275
total	3,193.7	3,687.9	3,960
of which			
polytechnics	—	169.1	174

1967	1974	1976	
STUDENTS STUDYING FOR RECOGNISED QUALIFICATIONS AT GRANT-AIDED ESTABLISHMENTS (*) (thousands)			
Advanced courses:			
postgraduate and higher degree	7.4	10.7	12.3
CNA first degree	10.2	63.3	62.9
university first degree	13.8	6.8	3.7
HNC	14.0	17.9	19.9
HNC	48.2	34.6	35.7
other advanced	89.3	89.6	118.2
all advanced	180.9	221.9	249.7
Non-advanced courses:			
ONC	11.8	21.8	25.7
ONC	59.7	58.2	63.4
City and Guilds	507.2	428.9	433.4
GCE	230.6	280.1	318.4
other non-advanced	138.6	128.1	121.8
all non-advanced	946.7	912.1	969.9
QUALIFICATIONS OBTAINED (thousands)			
Advanced courses:			
London University (first degree) (*)	5.0	2.8	2.7
CNA first degree (*)	0.8	7.9	5.6
HND	3.1	11.4	11.5
HNC	14.2	—	—
Non-advanced courses:			
OND	2.9	6.3	7.1
ONC	16.2	13.3	14.4
City and Guilds (*)	215.8	259.9	n.s.
FULL-TIME TEACHERS (thousands) (*)			
Major			
polytechnics/regional colleges (*)	5.8	13.1	13.3
other maintained and direct grant	39.0	47.1	49.3
evening institutes and divided service	0.3	0.5	0.6
EXPENDITURE (£ million) (*)			
current	169.3	625.3	887.7
capital	42.2	60.4	78.6
total	211.5	685.6	966.3

Getting engineering back on the right lines



Learning under ideal conditions at Stirling University.

The report on "Education, Engineers and Manufacturing Industry" for the British Association-Industry Co-ordinating Group, which has just been published by the Institute of Engineers, is a welcome addition to the literature on engineering education. It is particularly welcome on three grounds: the importance of the issues; the seriousness of the treatment; and the marshalling of relevant materials.

The report, however, is not only of value because of such positive diagnoses and recommendations. It also serves to open up crucial issues for wider discussion. Some of this discussion is bound to be critical, but one hopes it will precede constructive action.

The report applies itself constructively to the problem of contrasting the pool from which engineering students may be recruited, but it receives too little emphasis. It is worth noting that the increase in sixth form numbers comes from more girls staying on to take A levels, and that there has been a growing number of students doing natural science subjects at university.

Some heads of engineering departments would doubtless argue that the admission of students without physics would make difficulties in the provision of courses—and some would tend towards the opposite tactic of making chemistry a prerequisite as well. There is a further issue. The number of students reading natural science subjects at university is much higher than the number studying engineering. This means that there are more graduates in science than in engineering, and that there are more graduates in engineering than in physics.

At another point the report suggests that, given limitations on the current supply of qualified engineers, industrial employers should make some effort to attract good quality arts and social science graduates into production management. This may be sensible as an expedient, but can it be regarded as a solution?

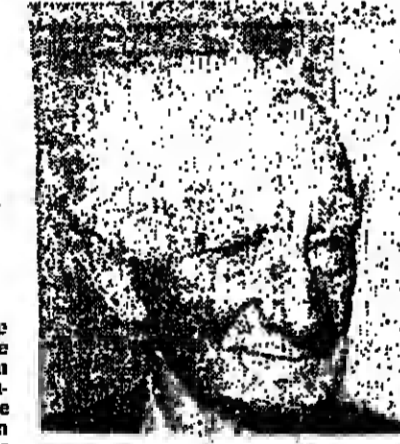
Further to the theme of production management, the authors of the report say that they encountered no bias against the production function in their inquiries. Others have found differently. A reinforcement of the Business Graduates Association this summer, Professor Luckey of the University of Bradford presented 1976 salary data showing that production executives were disadvantaged compared with company secretaries, sales executives and financial executives. The production executives' group was the only professional group whose report itself presents salary data showing engineers to be disadvantaged compared with accountants, lawyers, arts graduates, chemists and physicists in terms of median salary. But, it is suggested, engineers are more numerous than the other groups in the survey and are

Grand old man of LSE and social welfare

Part of the history of social welfare in Britain must be the story of the London School of Economics. In the first three decades of this century, legislation and ideas were linked to the school by the skin of influence running through the hands of Sidney and Beatrice Webb, its founders.

Nwether did the two histories run closer than in the career of William Beveridge, the Webb's choice as director of LSE in the 1920s and 1930s. Beveridge's administrative innovations: author of the famous reports on social insurance and full employment in the 1940s, and now the subject of a definitive biography by Dr Josie Harris.

Dr Harris, a Cambridge-trained historian who now lectures in the social sciences department at the LSE, started her work ten years ago on the suggestion of the late Richard Titmuss. Her study, to be published by Oxford University Press, looks at how it would form some parts both in the major biography of Beveridge, who died in 1963, and as an extended essay on the social theories held by someone who can justly be called an architect of the welfare state.



Lord Beveridge

enlightenment about social conditions through the universities' settlement at Tavistock Hall in the East End of London. He called his work there "a school of postgraduate education in humanity" and from it sprang a concern with the causes and alleviation of unemployment which he carried through a spell as a journalist into government service.

Beveridge's work on labour exchanges and unemployment insurance ranks him as a prominent educational administrator. After nearly 20 years as director of the LSE he moved to the mastership of University College, Oxford, where his continuing research on welfare and his understanding of the macro-economy was aided by a young British economist named Harold Wilson. Then came his ominous mirabridge, 1942. He led a committee to produce the "White Paper on Social Insurance and Allied Services" which set out to remove the "five giant obstacles" in the path of social reconstruction—namely ignorance, disease, squalor and idleness.

Three measures were envisaged: social insurance payable on a contributory basis; social assistance payable on a test of need; and a new public works programme. Beveridge later spoke out the details in a further report Full Employment in a Free Society. After

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The strain pulling Beveridge between action, reflection and creative policy-making showed through most clearly when he was at the LSE. Strongly, he was least interested in the social welfare department which was doing work. Beveridge himself had promoted the department, which was headed by a young economist named Harold Wilson. Then came his ominous mirabridge, 1942. He led a committee to produce the "White Paper on Social Insurance and Allied Services" which set out to remove the "five giant obstacles" in the path of social reconstruction—namely ignorance, disease, squalor and idleness.

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Can universities adapt to changes in the schools?

For some years after the Robbins report, the four that "more will mean some" appeared to be unfounded. But recently concern has been expressed in universities, with increasing frequency and conviction, that standards have fallen.

The Robbins report argued that there was a very large "pool of ability" particularly among working-class children, which could ensure that the expansion of student numbers happened without loss of quality. Unfortunately, since the expansion of working-class children, the quality of higher education today is significantly different now to what it was before the Second World War, obviously we have largely failed to tap this source. Presumably we have therefore (to change the metaphor) instead dipped more into the middle-class barrel.

The world naturally results in a population which is more able to move upwards the less able, and it is indeed what may have happened in the case of the "pool of ability" that in spite of the fact that the "pool of ability" is larger, the quality of higher education today is significantly different now to what it was before the Second World War, obviously we have largely failed to tap this source.

status under which they are educated. Professor Rowson, of Queen Mary College, in a fascinating study of the geographical distribution of degree studies through appropriate teaching of university?

Before answering this we ought to consider how reliable the results are as a predictor of future success. During the period 1957 to 1964, when I was head of the physics department at Battersea College of Technology, we had the task of preparing students for the American universities of London University. The examination was the same as that taken by the students of the university, but since the A-level grades of our students were significantly worse I decided to adopt different teaching strategies from those I had used previously. As a result of this, the results were the same or better than those at the university, although we got fewer firsts. From this fact I tentatively drew two conclusions: (a) there is some predictive value in A level grades, (b) it is possible to make up for at least some student deficiencies by appropriate teaching.

Some years later I conducted an inquiry into the correlation between A-level and degree results for a number of physics courses in different universities and found that there was indeed a correlation between A-level score and degree performance. Total A-level scores turned out to be a better predictor than the score in any one subject, which would be particularly surprising if we should change to N and F levels, but even then the correlation was only 0.35. Put differently, this meant, however, that even the group with the lowest grades (from DDE to EE) had a three-third chance of getting a degree for full results see Physics Education, 1968, vol 4, p.236f.

At this point we can say that while students with low A level grades are more likely to fail than those with high ones, they are significantly more likely to pass than they would be if they were not kept in them, but it would be equally wrong to accept them and not to adopt the teaching to the choosing intake.

One of the lessons which I learnt during the days that we prepared students for the London degree was that many students simply could not cope with the large quantity of material in a normal degree course, and that if this quantity was reduced they performed out of all proportion better on what they had learnt. So when we became the University of Surrey and had full control over our degrees, we introduced a scheme by which the totality of the course was progressively adjusted to the student's ability. Those working to a smaller syllabus had of course to obtain correspondingly higher marks for a given degree grade, but in this way the encouragement which comes from doing well was available to all students (Physics Education, 1966, Vol 1, p.89).

A similar scheme was introduced some years later at London University, where the full degree course was measured from eight to 12 credits.

However, adapting the quantity of course material to the student's abilities is not enough, as we discovered by studying the problems that students face when they first enter university. We found that one reason why students with low A level grades did badly at university was that they were behind at the start and never caught up. We also found that by diagnosing gaps in their knowledge, particularly in mathematics—by providing remedial teaching for as brief a period as three very intensive days, it was possible to improve their subsequent performance significantly.

Perhaps the biggest hopes for giving students a better deal of university lies in providing them with more individualized teaching, such as through the Keller Plan. A number of different ways of doing this have been investigated by the Higher Education Learning Project (Physics).

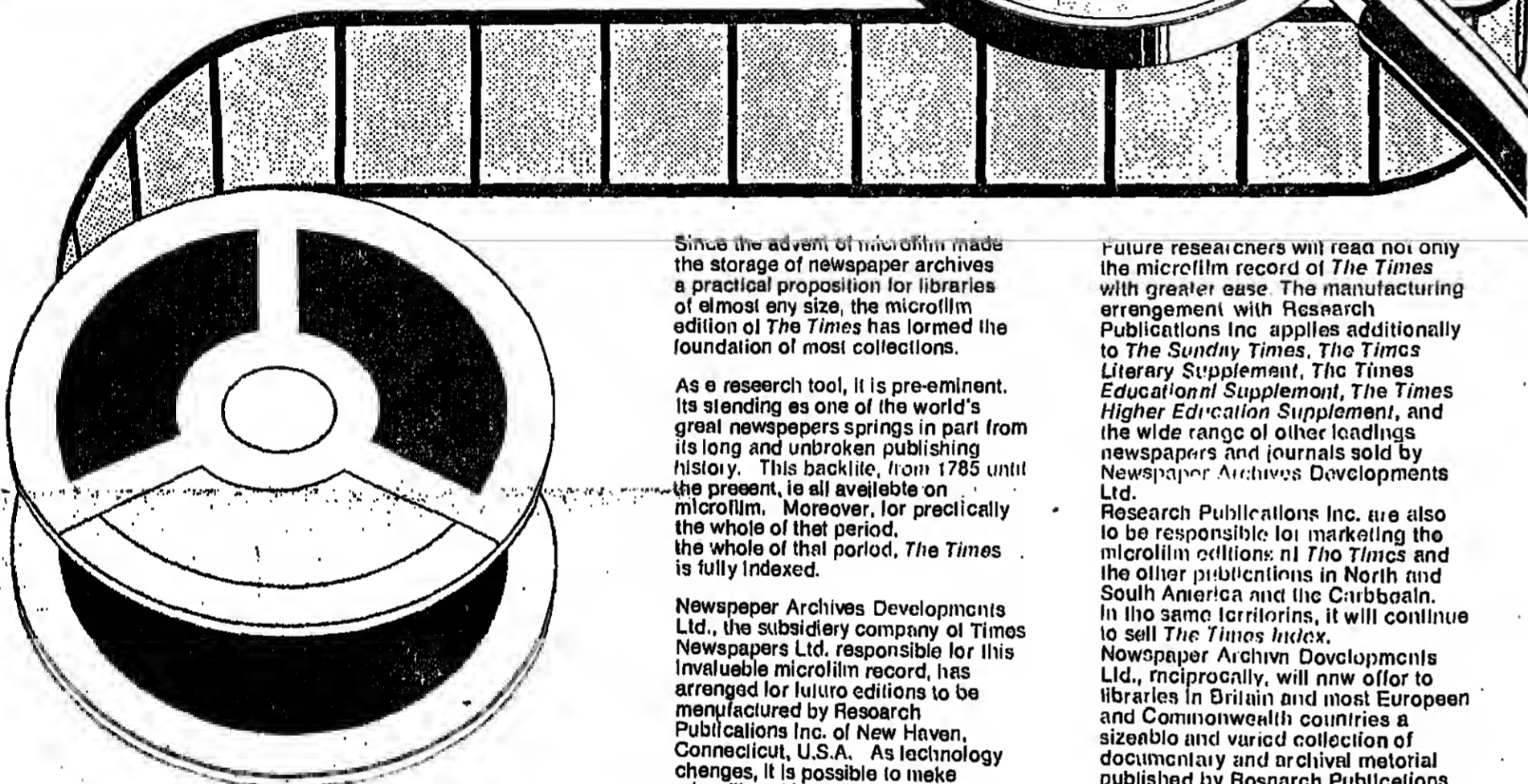
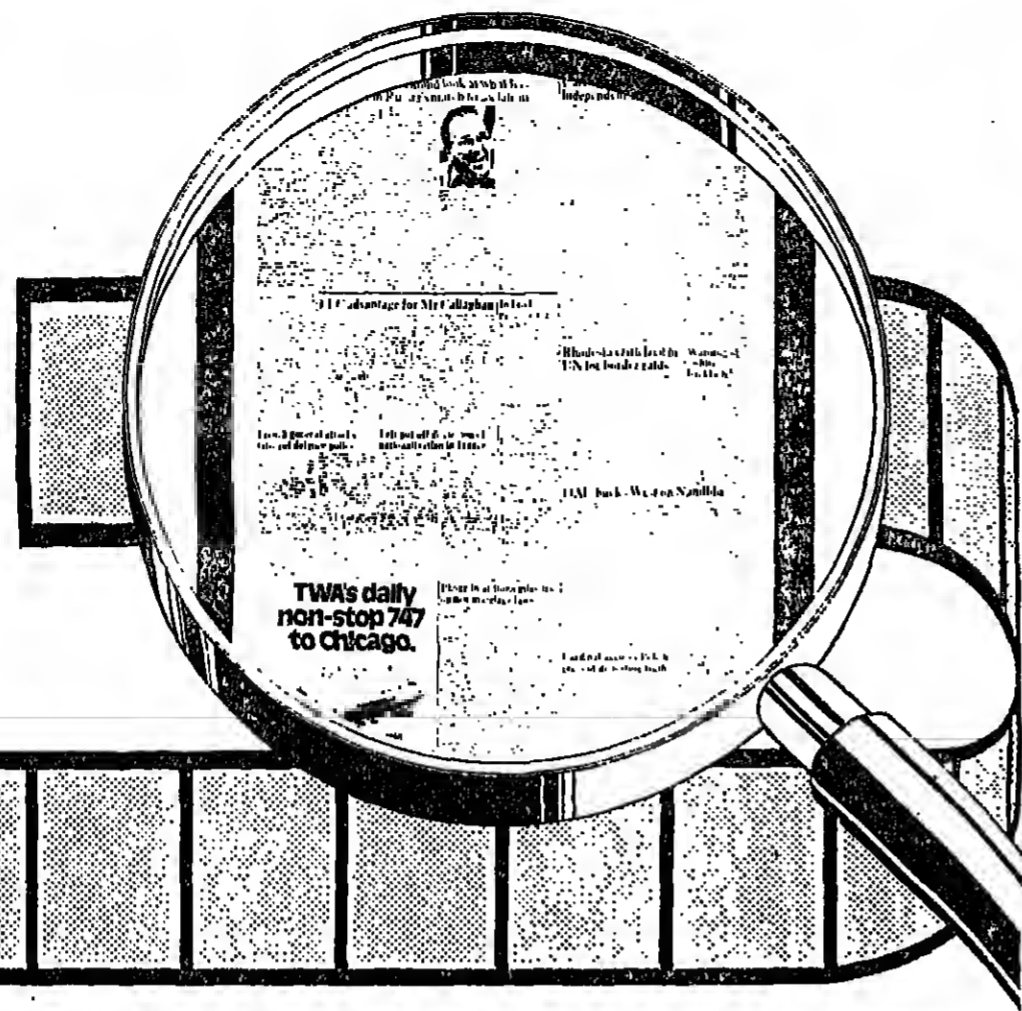
Although all the above investigations have been conducted in connection with physics courses, the lessons learned are likely to be applicable to any subject in which knowledge is acquired consecutively, i.e. where later knowledge builds on earlier. It is of course in these subjects that the problems of differential standards are particularly apparent. I therefore conclude that there is a possibility to be further explored, that of adopting the needs of today and indeed of tomorrow, without degree standards necessarily having to be altered.

Can universities adapt to changes in the schools? The answer is yes, but it requires a fundamental re-examination of the way in which we teach and assess our students. We must move away from a one-size-fits-all approach to one that recognizes and nurtures individual abilities and interests. This means providing remedial teaching, individualized instruction, and flexible assessment methods. The goal is to ensure that every student has the opportunity to succeed and that the quality of higher education is maintained and improved.

The author is head of the Institute for Educational Technology and professor of science education at the University of Surrey.

Lewis Elton

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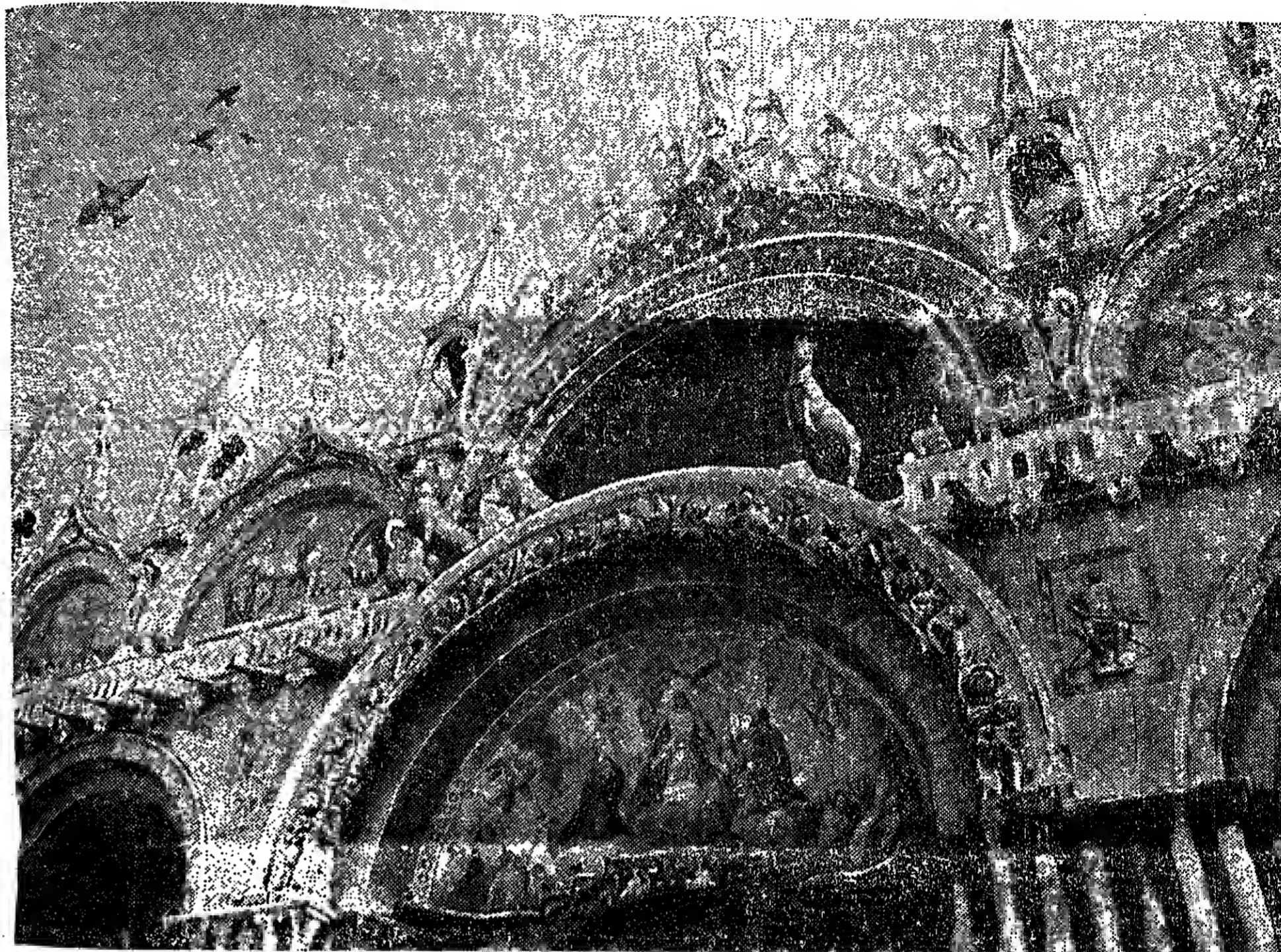
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Cuts called for in range of Masters' degrees

A "tremendous variation" in the type of master's degree now being offered by American graduate schools is seriously worrying the Council of Graduate Schools, the body that represents and coordinates postgraduate education in the United States.

A recent survey identified 203 different types of Master's degrees. Of these, 124—61 per cent of the total number—are offered by no more than one institution.

In the field of education, for example, there are 159 institutions awarding a Master's of a specified field. The most common are the Master of Arts in Teaching and Master of Music Education. But the survey also listed Master's degrees in: extension education, food science, health professions education, home economics education, nursing education, professional studies in special education, secondary teaching and 10 others, all of which were offered at only one university.

This proliferation of nonuniversity leads to chaos, the council believes. It also suggested that for professional degrees, such as the Master of Business Administration, Master of Music and so on, the appropriate degree should be awarded without specifying the particular field in which graduate study was completed.

The survey covered 460 institutions, which awarded Master's degrees. It found that another aspect of rapid proliferation was the social sciences. Some 255 colleges and universities now award a Master of some specialized field—administration of justice, aeronautics and astronautics, behavioral studies, chemical education, forensic science, general studies, human development, interdisciplinary studies and laws in taxation—to name a few.

The most common designations are Master of Public Administration, Master of Social Work and Master of Library Science. What is most alarming, the council says, is that there are 52 different degrees which are all offered at only one institution.

...a tendency towards an "unwarranted" spread in most common at State universities which also offer PhDs. It is least apparent at private universities where the Master's degree is the highest degree awarded.

"Many of these were presumably established to provide specificity," the survey says. "However, the question can be raised as to whether the recipients of these degrees are placed at a disadvantage and the standards required are not widely known."

The council thinks four broad categories should be enough: Master of Science, Master of Arts, Master of Business Administration and Master of Education. These still do account for the bulk of all Master's degrees offered.

Dr Boyd Page, president of the council, said it had long been a tradition in the United States—as in Britain, West Germany and elsewhere—that a degree designated a "love of education," and not its specificity. Candidates were allowed to train people for particular jobs. "It would dilute the whole structure."

"We were required to outline exactly what a person was trained to do," he said. "About 300,000 Master's degrees are awarded each year in the United States. The overwhelming majority still use a simple designation. But in recent years the emphasis on vocational education, and the outflow from the US Office of Education for more training, has led to more universities to be specific and encouraged those who would like to see degrees outline the area of knowledge."

The problem is less acute with the PhD—both because it is generally accepted that this higher degree does need a little more definition, and because the proliferation has been less marked,

Michael Binyon, North America correspondent, visits of the most unusual academic complexes in the United States

Research park where the grass is already greener

It decided from the start to limit only those bodies whose business was pure research, and laid down strict conditions: less than a quarter of the land allocated could be built on, landscaping was essential, distance had to be maintained between each building. Serenity of the park was to be the main concern.

This foresight has paid off. The park looks like and increasingly functions as a single enormous campus, and it is this carefully controlled environment that has made it so attractive. Well-qualified academics have been lured down from New York, Boston, California and other traditional centres of learning.

The rule of the sponsoring universities is crucial. Many of the researchers, especially those in Federal and non-industrial bodies, are career academics on temporary secondment, and most hold junior professorships at one or other of the three universities.

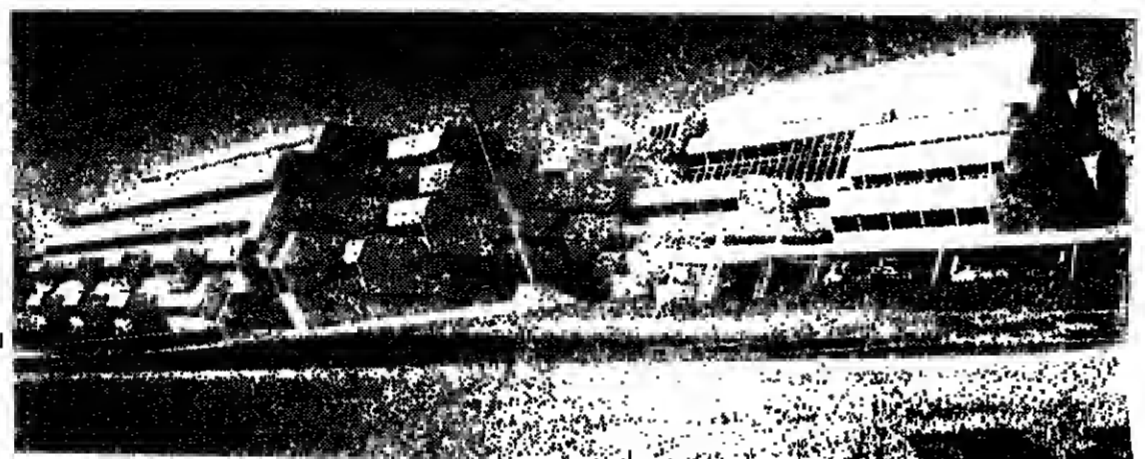
This arrangement is mutually beneficial. The universities gain the experience and teaching of some of the leading experts in particular fields. The academics maintain an unbroken record of university appointment while his almost essential if they are to re-enter the university world. And through their research organizations many of the research organizations are quickly able to contact other academics

and its molecular biology research department has gathered a remarkable collection of the brightest and best postgraduates from all over the world.

The prestige of some of the work on the park could raise difficulties for the universities. Although all good, the universities are not quite in the same league as America's foremost research universities, nor do they yet have the same international reputation. They may seem floundering but they are living in the shadow of the child they created.

Dr William Friday, president of the greater university system of North Carolina (and President Carter's original choice to head the Department of Health, Education and Welfare) does not see any future conflict. He sees the park eventually becoming a single academic umbrella, under which the universities, each with complementary areas of academic strength, function as single integrated strength (though for administrative and political reasons they could never be into one institution).

Will now the park's research be heavily scientific in orientation, and will it continue to be so? Officially each institution on the park is a self-contained entity. In practice, relations are close, the exchange continuous and the informal contacts of enormous importance.



The futuristic Burroughs Wellcome headquarters.

working in the same field elsewhere. At the same time, the universities offer their own employees the chance to earn some extra money outside conventional channels. A job at Duke, UNC or North Carolina State that much more attractive. The presence of the park has enhanced the universities' reputation for teaching staff—it has given some of the weaker departments healthy intellectual competition.

Students also benefit. Those doing research are sometimes offered fellowships in the well-equipped commercial laboratories, and maybe a subsequent full-time job. Undergraduates have ever before them the example of postgraduate work and the chance to attend the public lectures arranged by the park's tenants on the latest and best in scientific research.

The most visible influence of the universities on the park is through the Research Triangle Institute. A wholly owned subsidiary of the three, it undertakes contract research in a variety of fields for clients on the park and companies outside. It began humbly with 35 employees and a few facilities, but has grown to 200 employees and a large technical centre of the American Association of Textile Chemists.

Research Triangle Park is strong in basic science. Burroughs Wellcome, whose futuristic building has become a symbol of the park, is perhaps one of the commercial companies most committed to basic research. Being a non-profit foundation helps; there is less pressure for quick marketable results.

But the company has also found an open-ended research policy in the end products of its results. Its biology laboratories are among the best-equipped in the United States,

personal friends, brought together by academic discipline or simply living together on the same housing estate.

They know that if a piece of equipment breaks or is suddenly needed they can turn from each other. They have an opportunity for face-to-face conversation with people in the forefront of their disciplines, and, as Dr John Krielson, director of the Environmental Protection Agency's laboratory remarked: "I have this reassuring conviction that I can sit in my office and call on any of those scholars out there."

Dr Al Shan from the chemical equipment firm of Becton Dickinson, said it was rare for him to have to go outside the park.

The research bodies themselves do much to promote the interchange. They run a vast number of seminars and public lectures, which are open to anyone interested. The laboratory directors have a regular monthly meeting at which they outline some of the things they are doing. Many of the research workers make career moves from one laboratory to another.

Probably the greatest persuader to the local community is the clear economic benefit. The average research worker earns paid in salaries of \$12,000 a year. The park's employees in 1976 were \$12m. The plant now installed on the park is worth over \$300m.

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The centre is the child of a big set up with Government support to encourage serious research in the humanities, great efforts were made to attract it to the triangle. The Foundation even donated the land and drummed up the surprising sum of \$3m from local banks to start the education ministry. At least Wikström, is committed to seeing it through.

It has also said that the Government should set up a commission during the next year to work on plans for bringing all post-secondary education to direct contact with the market. At present about one-third of study places—mainly in the nursing and welfare work sector—are a local authority responsibility.

Nevertheless, budget proposals for 1978/79 presented last week by the National Board of Universities and Colleges are much more conservative than hoped.

Although spending will rise by 37 S.Kr. (£2.2m) to 2,750m S.Kr. the 57m S.Kr. (£3.8m) increase earmarked for innovations in only 100 S.Kr. as much as originally planned this year.

One change that will be made for next year is in the handling of student applications for the first time, all students, and not just those wishing to enter courses with

restricted places, had to send in applications. The result has been chaos in many parts of the country. Universities and colleges were besieged with inquiries, mostly from prospective students unable to understand the complicated coded application forms and thick course catalogues.

Qualification and selection procedures, introduced with this summer's reform (TTES, May 28, 1976) are highly complex and applicants have had to wait a long time to find out whether they have been successful. In Stockholm, the worst affected city, many were given two weeks to give notice of work, find a flat and apply for study support. The main cause of delays has been the dramatic excess over expectations in the number applying locally for entry to unrestricted courses. Stockholm University expected 22,000, while demand doubled at Dincea and increased 30 per cent at Linköping and Gothenburg.

Currency crisis halts most reforms

As the new academic year approaches in Scandinavia, devaluation and entry procedures are the main camps concerns.

Mike Dickenfield reports

As the new academic year in Scandinavia is being overshadowed by last week's "stabilisation programme" announced by the Swedish Government, as well as the 10 per cent devaluation and two-month price freeze, the Centre-Right Coalition's austerity package will mean an end to most social reforms now in the pipeline.

Because of the inter-dependence of the Nordic economies, the Swedish measures precipitated lesser devaluations of the Norwegian, Danish and Finnish currencies.

In Norway, the Labour leader, Mr Odvar Nordli, faces his first general election as prime minister this weekend, and in Denmark talks are going on between the Prime Minister, Mr Anker Jørgensen, and leaders of the Liberal, Conservative and Radical parties in an effort to break the seven-month-old, Social Democrat-led coalition, in order to tackle the nation's economic ills with a common front.

The consequences of the Swedish reforms will not be clear until negotiations over the annual budget for the year beginning next July get under way this autumn. The effects of the reforms inherited from Mr Palm's Government last October have already been agreed on or implemented. However, their progress may be slowed.

The major reform of higher education (US) came into force at the beginning of July (TTES, May 13) and, although it got off to a chaotic start, the education ministry, Mr Ingvald Wikström, is committed to seeing it through.

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Paul McGill on the emerging higher education policies of the new Irish Government

Top validating body reinstated

The success of Flanna Fail in capturing a recent majority in last June's general election has led to a more important change in higher education.

Mr John Wilson, the new Minister for Education, announced shortly after taking office that he intended to reconstitute the National Council for Educational Awards as a degree-awarding body. The previous Government stripped the council of its responsibility for the higher level work in December, 1974, and confined degree validation to the universities.

The change is a victory for the Union of Students in Ireland, which campaigned strongly for the restoration of degree work in the NCEA. But it could be a hollow victory unless the Minister takes steps to undo the newly formed links between the universities and the NCEA's technological colleges.

Trinity College, in particular, has agreed to give degrees for several courses in the technical sector. Despite the change of government, it appears likely that several various standards of the Higher Education Working Party established by former Minister, Mr Richard Burke will be adopted. Mr Wilson will certainly go along with the policy of granting inde-

pendence to the constituent colleges of the National University of Ireland in Dublin, Cork and Galway, for example.

The position of Trinity is now more assured than previously by ministerial status of one of its professors, the former economic adviser to the Flanna Fail party. The faculties of Business Studies and Social Studies, which the Coalition wanted to move to University College, Dublin, are now virtually certain to remain.

The recommendations that the National Institute for Higher Education should be linked with Galway University and Thomond College of Physical Education with Cork University are less likely to be adopted. Instead, the Higher Education Authority is understood to have argued that the NHR and Thomond—which are on the same campus in Limerick—should merge to avoid duplication of facilities.

A major talking point remains the future of Maynooth College, which has a dual role as a recognized college of the National University of Ireland and as Ireland's largest Catholic seminary.

The working party recommended that Maynooth should become an independent university, entirely separate from the seminary, governed by a council on which the trustees—consisting entirely of Catholic Bishops—would be a small minority.

The situation has been made more fluid by the appointment of the college president, Monsignor Tomás O'Fiach as Primate of All Ireland and Archbishop of Armagh in succession to the late Cardinal Conway. The more immediate problem of the dispute over the dismissal of two lecturers earlier this year by the college authorities, (TTES May 21).

The trustees claimed that one of the lecturers, Mr Malachy O'Riordan, had forfeited his right to teach by becoming a layman last year and that the other, Professor P. McGrath, had published articles which had brought the church into disrepute.

The dispute has already provoked the first-ever strike by academics in the Republic and the lecturers' union, the Irish Federation of University Teachers, is determined to fight the case to the end. So far it has collected from its members a fighting fund of over £8,000 and it is seeking a ruling from the High Court that the sackings were unlawful. The teachers are receiving union benefits until the case is heard, probably in November.

Applications pour into new medical school

from William Purvis

Australia's newest medical school has been flooded with applications from hopeful students within a few days of a warning that the country will soon have an over-supply of doctors.

The warning came from Dr Paul Cross, chairman of the Federal Hospital and Health Services Commission. He said a surplus of doctors was already becoming evident in two of Australia's six states.

Undeterred, more than 2,000 people have applied for 64 places when Newcastle University Medical School opens its doors next year.

Admission to the school will not be based solely on academic progress. The 64 places will be allocated in two groups or streams of 32. One stream will be chosen purely on academic merit—the top 20 per cent of applicants will come to the second stream will include teachers' assessments for school-leavers, tests of personality and creativity levels for older applicants, and personal interviews.

The performance of the two streams will be monitored to compare the achievements of the "academic" group with those from the second stream and evaluate the selection process.

The selection committee expects it may take up to 15 years to get a conclusive answer to the question of whether there is any significant difference in outcome between the two streams.

The next step for the 2,000 applicants who survive the initial screening process comes in September. These applicants face the second stream who go through the education and residential requirements will be invited to spend a day on the campus during which they will undergo written tests designed to assess their personality and creativity characteristics.

Those who finally gain admission will be entering just another medical school. Professor Tony Vinson, chairman of the admissions policy committee, stresses this emphasis the course will put on personal qualities.

'All-in' campuses to get bigger share of places

by Günther Kloss

Since 1951, when joint Brand-Linder medium-term planning for the expansion of higher education was initiated, 218,000 new student places have been created, representing an increase of 46 per cent in space available. This compares with an increase of 20 per cent in the number of teaching staff, 17 per cent in the number of first-year students and 49 per cent in the total number of students (from 587,000 to 877,000).

These figures are revealed in the seventh *Rahmenplan* (General Buildings Programme for Institutions of Higher Education) for the years 1978 to 1981. It is the latest in the rolling four-year programmes of the University Buildings Planning Committee, which is solely concerned with student places in terms of the required area per student.

Additional factors—for example, staff hours available and utilization of rooms—are needed to determine the student capacity of an institution. Coordination between the different criteria is still unsatisfactory. Currently there are around 20 per cent more students than the available area per student place would suggest.

As far as the latter is concerned, the committee now operates much more refined and differentiated criteria than during the early years of its existence. For example, honours and non-honours subjects groups, however, the committee still encounters difficulties in determining the total number of student places in terms of area, partly because so many old buildings are involved which at the time of construction were never subject to such criteria, partly because the collecting and

Under the latest plan the share of the universities and colleges of education in places will drop, and that of comprehensive universities and vocational colleges will rise. Relatively more places will be provided in economics and social science subjects, relatively fewer in arts-type subjects. Science and engineering subjects will show the greatest growth rate, 15 per cent.

The committee again reaffirms its long-term planning target of 850,000 student places for 1985. Effectively this means 1 million students and 250,000 freshers, provided that better coordination of buildings, equipment and staff planning is achieved and resources are more rationally employed. The planning target of the current 1978 to 1981 plan is 128,000 new student places, including 31,000 places which will only be completed after 1981.

colating of data in a federal system, where each Land adheres to the "cultural autonomy" is difficult.

Taking account of these limitations, the seventh *Rahmenplan* says that two-thirds of all student places (about 15 per cent of total student places) will be comprehensive universities having 4.2 per cent and colleges of education 10.7 per cent.

Among subject groups, arts-type subjects accounted for one-third of existing places, engineering for 18 per cent, natural sciences for 16 per cent, and medicine for 7 per cent. The most rapid growth occurred in subjects to a teaching qualification (33 per cent), medicine (33 per cent), engineering (29 per cent) and natural sciences (28 per cent). Relatively speaking, arts-type subjects grow least (20 per cent).

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Academic apartheid relaxed

from Martin Feinstein

The Indian University of Durban-Westville, is to be opened to white students. The university's rector, Professor S. P. Oliver, predicted that the student population would grow from 4,000 to 10,000 by 1990 as a result of the new disposition.

Handwritten note in the left margin: "The survey covered 460 institutions, which awarded Master's degrees. It found that another aspect of rapid proliferation was the social sciences. Some 255 colleges and universities now award a Master of some specialized field—administration of justice, aeronautics and astronautics, behavioral studies, chemical education, forensic science, general studies, human development, interdisciplinary studies and laws in taxation—to name a few."



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The right formula for a maths problem

There is a neat symmetry in the "pure means pure" formula that belies the complexity of the educational judgments on which it is based. Nonetheless are the issues raised of more importance than in calculating performance at school to that at university; and in no subject are they more acute than in mathematics, occupying as it does a key position in modern scientific and engineering curricula.

The plethora of mathematics examinations, spurred by recent developments in school mathematics teaching, have undoubtedly given rise to major problems for university teachers, many of whom have to accommodate students coming with a wide range of background knowledge. Referring to this problem at the British Association's meeting in Birmingham last week, Professor John Crank of Brunel University suggested that the solution might lie in instituting a "core" paper in A level mathematics, an adequate performance on which would be required of all students.

Such a development would undoubtedly assist university mathematics departments by providing a base of knowledge which all students could be assumed to possess. For the objective educational advantages should not be allowed to obscure the important social choices, which are also at stake.

The proposed for a core mathematics paper attempts to shift part of the responsibility for a student's performance need achievement in

LETTERS TO THE EDITOR

Engineering applicants

Clearly, students who had not done a level of physics work, in fact, find a first year laboratory work in a three-year engineering course impossible to cope with.

Possibly a more realistic solution to the problem of reducing entry qualifications would be to make engineering degree courses four year courses for the non-A level physics entrant. The first year would need to be a conversion course covering some of the work usually done at A level.

This suggestion, however, has many implications. Universities are not physically equipped to do this level of work, and thus spent on such work would probably be at the expense of research. Polytechnics would probably be better suited to do these conversion courses, because they are experienced in teaching and student ability. However, I would not be convinced that there is a substantial demand by able students before embarking on any such course development.

Yours faithfully,
G. RATCLIFFE,
Department of Physics Mathematics and Computing,
John Dalton Faculty of Technology,
Manchester Polytechnic.

Sir,—It was encouraging to see the British Association committee recommending the relaxation of one of the mandatory A levels for entry to engineering courses (TTES, August 26). That might one query why not limit?

Will to one in his serious mind deny the importance of adequate numeracy for engineers, or the engineering departments realized that many potentially good candidates are prevented from obtaining their preferred A levels in grammar schools? It is time to look at the possibility of engineering courses at A-level physics to O-level physics.

It is also seriously being suggested that a student who has not done mechanics, electricity, or practical work should not find the necessary adjustments in first year engineering courses? The implication that some physics is not a necessary prerequisite for any engineering course is a nonsense simply because physics is the study of energy and engineering is the efficient utilization of energy. In no way is the relevance of physics to engineering reinforced by the fact that many engineers are employed as engineers in professional engineering institutions.

All engineering courses involve practical work and usually project skills such as measuring, graphical work, writing up, as well as some previous experience of scientific method. These skills are usually acquired via A level physics.

Michael Posner, chairman of the SSRC's panel on energy, on the need to bring academics and policy-makers together

Energy studies: how academics can help open government

The Social Science Research Council has recently decided to set up a panel on energy, for an initial period of three years. This decision stems from a paper commissioned by the SSRC earlier in the year, which was discussed by a group of economists, political scientists and scientists before presentation to the Research Initiatives Board in the spring.

The paper said that there are many interesting and important issues to energy-related fields which have been only lightly touched in recent years, and that it might be advantageous to social scientists—and conceivably to other areas—a whole—if rather more effort was put into these topics in the next few years.

When I first entered the energy field in the early 1980s, it was only through the initiative of very thoughtful people, and the threefold increase in the real price of energy over the last few years, and the prospect of further large changes in the future, it would not be unreasonable to expect some similar increase in the degree of academic effort put into energy-associated topics.

Doubtless that will happen in time, whatever the Father Christmases decide to do; but a judicious degree of coaxing, urging, and prodding may speed up the reaction time. It is in this modest role of catalyst that my colleagues and I in the SSRC panel can ourselves.

I therefore hope that academic colleagues, while preserving their own independence, will feel when observing trends bearing witness to our recent report suggestive of fruitful lines of academic endeavour. Energy implies in the social sciences, a return to the research interests of the SSRC. Copies available on request to the SSRC, London.



Nuclear or wind power: genuine policy options? Social scientists can help the public to discuss important policy matters.

adjustments, and allow these adjustments to take place very late in time, is likely to be sharp structural changes in the nature of our economy, and indeed of our society. They are warning that these changes will come; and that we should help to mitigate their effect by taking some of them early, and exploring some of the alternatives (increased production of various sorts) in sufficient time for them to help.

The "energy experts" are not necessarily right about all this; I remember a contrasting consensus about a decade ago, when every oil company expert and every ministry of foreign affairs in the Western world asserted roundly that the OPEC cartel could never hold, and that the real price of oil would stay at around \$3 per barrel for ever. But the belated and painful realization that experts can be wrong is no reason to shut one's ears to their tales now: the informed public will need in examining analyses, and it will be our duty to equip them with the probing weapons required for this purpose.

Social science role

A very important point made in our report to the SSRC earlier in the year was that one of the major functions which social scientists could play in such matters, where public policy was notably at issue, was to stimulate public discussion and equip the public to join that discussion productively.

It is even truer of international affairs, where our approach to relationships with the Arab powers, towards the energy problems of the less developed countries, and towards the relations between European countries and the United States, is generally uninformed.

Nor would I wish to play down the technical contribution which social scientists have to make to problems of energy conservation. Economists have already contributed much in this field; the distinguished theoretical work of Ralph Turvey in pricing and investment criteria; the work of the economic committee on depletion problems; and the important work of inter-continental consumption of natural resources; the work of Colin Robinson, Donald Mackay and G. A. Mackay on North Sea oil; and the work of the Science Policy Research Unit at Sussex, many of the problems encountered with electric power systems. All these provide a good foundation to build upon.

But the contrast with the field of macro-economic policy is quite striking: through his post-1970s studies, the National Institute for Economic and Social Research, and more recently both the London Business School and the Cambridge Department of Applied Economics, have provided a training ground, in consultation, and a sort of Chinese "wall newspaper" for professionalists in this central area.

What the National Institute has done for macro-economics in simple energy matters has yet begun to do for energy studies, although the Energy Research Group at the Cavendish Laboratory in Cambridge, the Science Policy Research Unit at Sussex and the Open University Energy Unit have all done notable things.

This is not a call for a large new institute: in a field as new as energy studies, "no monoliths" is a valuable watchword. But it is a plea for a rather larger-scale effort, at least here or there, so that the bleeding-off of one or two of the younger members of the team would

Process in slow motion ... or in other words

"It may be helpful to look upon structure as process in slow motion. We have argued that the core centre of concern in higher education—indeed its defining activity—is the enterprise of teaching and learning (variously seen as knowledge, transmission and transaction), along with the closely associated enterprise of research and scholarship (variously seen as knowledge generation and regeneration). It follows that any attempt at fundamental improvement to the system must be justified in terms of its contribution to the curriculum, in the interaction between teacher and taught, or to the immediate context in which they are embedded. The larger institutional structures exist in order to facilitate rather than to constrain, these educational processes, and must in consequence be regarded as subsidiary and subordinate to them. In other words, structure should be designed to reflect process rather than being used to determine it." (From *Purpose, Politics and Prospects in Higher Education*, an unpublished contribution to an international study of systems of higher education, by Tony Decher, Jack Embling and Maurice Kogan.)

"Morning, Bill. Nice to see you back in office? No time. Nine hours of lectures are to prepare this year, you know."

"You mean more intercollegiate between teacher and taught?"

"Right. And one of the immediate concerns in which it is embodied is the heavy novels of Jane Austen."

"Tough. What's that to be embodied in that. The institutional structures didn't replace heavy and Goodbody when they retired from the enterprise of teaching and learning, did they?"

"Exactly, so we are short of people for knowledge transmission and transaction."

"Shame, really, when it's the true centre of concern."

"Indeed, the defining activity."

"As Decher and Kogan have argued."

"And Embling."

"No, he didn't write that bit."

"Anyway, I don't think much of our purposes and policies."

"Nor our prospects, while the help to go. Sir Frederick Dutton as process in slow motion."

"Yes, that makes no much more cheerful, particularly when you think he exists in order to facilitate processes."

"And must, in consequence, be regarded as subsidiary and subordinate."

"But do you think he was really well designed to reflect process?"

"Well, you know, rather than determine it."

"Frankly, Bill, I haven't the faintest idea why you're ranting so about Kogan and Decher."

"He's read Embling's bit, and he's not. You've got some knowledge regeneration to go on with."

"And my publisher's lag, or no for the latest book. It's a pity it hasn't done the knowledge generation yet."

"Is that what is variously seen as research?"

"Yes. I wonder what the systems are like in other countries. Let's give the national Council for Educational Development a ring."

"Sorry, George, it's morning necessary. Larger institutional structures, say, we can't use the phone."

Poly non-admission

Sir,—Your leader (TTES, September 2) concerning the non-admission of Mr S. Vyas to the Certificate of Qualification in Social Work course sets out many of the facts quite fairly. But I used in clarity my personal position. I am wholly sympathetic with Mr Vyas, and I think that the social work staff here have acted with less than common sense. Their professional judgment, which I respect, is that Mr Vyas would not make a good social worker. My problem is that his immediate professional superiors in Newham, where he is working as a social worker, think that not only is he a good social worker but a very good one. I respect that professional judgment as well.

Obviously with such conflicting professional evidence, there is no doubt. And since by agreement, were reserved special places for people from the boroughs of Haringey, Haringey and Waltham Forest, I have been given that he should be admitted to the course.

It is in this respect that common sense should have prevailed.

The Central Council has a fair point when it says that the admission to the course must be under which have the ultimate sanction of the Privy Council. But it has a series of paragraphs in the regulations which give the necessary "discretion" to the local authority and to the Council. This is the Central Council's intention.

Grant for the WEA

Sir, Sarah Seaman, in her article (TTES, September 2) draws attention to the very grant arrangement which has been introduced for the Workers' Educational Association by the Department of Education during the past year.

The teaching grant which the association had for so many years had increasingly perished through financial assistance for the work being promoted and during the past years had resulted in an increasingly bleak and planned development impossible. The association has, for some time, been pressing for a grant which recognized the teaching and promotional work. These promotional courses have become more important with the association's development of the special work recommended by the Russell report.

The Department recently agreed to the introduction of a new grant arrangement and to pay an increased grant for 1977/78. Although the total grant was increased but it was not clear that this would meet all the needs of the district and it was this which created some difficulty in reaching the target amount should be distributed by the Department after consultation with its association and has been found by districts to be reasonable and fair.

Even so there can be little doubt that all districts will have some difficulty in controlling their expenditure and finding funds for the promotion and special work which the association is being urged to promote is both a difficult and more costly than a more traditional class provision.

Yours faithfully,
R. BRYANT,
General Secretary,
Workers' Educational Association,
London, W.1.

The energy problem

For an economist, the "real price rise" referred to above is the revaluation of the "energy problem" as it has so far manifested itself, and the prospect of future price rises also captures much of the issues that may be in the pipeline. Almost all other informed observers find this an irritatingly narrow way in which to define and discuss the energy problem as they see it.

This is an amusing dispute, not without useful lessons in all directions. But it can also get tiresome, and as a professional economist I can perhaps quiet the canting noise by admitting that there is more to it than such a narrow "economic" definition would allow.

When we think of ordinary price rises (say of coffee or copper), it does not matter very much whether the increase is on the demand side or the supply side, whether people substitute tea for coffee, or whether the price of coffee rises because of a shortage of coffee beans, or whether the price of coffee rises because of a shortage of coffee beans, or whether the price of coffee rises because of a shortage of coffee beans.

But a foreseen "shortage" of liquid hydrocarbons will have very different effects on the world according to the division of its consequences between: forced conservation (induced by price rises); increased production of alternative hydrocarbon sources from new parts of the world; and increased production of alternative types of energy (nuclear power, windpower, and so on).

The energy experts are telling the rest of us that the real price rise will come about if we leave everything to conservation

Postgraduate success

Sir,—Dr John Sutherland and Dr Stephen Foster (TTES, August 26) imply that one of the reasons for the poor postgraduate success rate in that a "large proportion" of these students is part or wholly self-financing.

In Doctoral Fellowships, it is shown that among Canadian Council doctoral fellows, the success rate is a higher success rate than that of non-fellowship students.

It may well be, moreover, that many North American doctoral students in Britain will have taken their own money to Canada to complete a Canadian master's degree, and a Canadian master's degree, and a Canadian master's degree, and a Canadian master's degree.

Yours faithfully,
R. J. BARKER,
President and vice-chancellor,
University of Prince Edward Island,
Canada.

Letters for publication should arrive by Tuesday morning at the latest. They should be as short as possible, and the editor reserves the right to cut or amend them if necessary.

leave the heavy of the research effort to the public.

A massive flow of people in the Department of Energy, and into some of the public corporations and international oil companies, on a loan basis would be very valuable to all parties. It would also be a massive "adversary policy" out of this area of our public affairs: we have been remarkably lucky in this matter so far, despite the amazing opportunities in such fields as North Sea taxation and the coalfields.

It is through such intrusion of people from the academic world into the policy-maker's world that the influence of research, both in the social and in the other sciences, is most successfully brought to bear on the public mind. These are the areas in which government should reflect that a university department in which one or two of the younger members have had recent experience in institutions or government is likely to be more effective in addressing its collective mind to policy issues, or in presenting and analysing arguments of public enquiries and in the course of public debates.

To use the academic world "research" to denote academic discussion of energy matters is not just unfair but the mode of speech fashionable in grant-giving circles. I was brought up at a time when the contribution of ideas to policy matters was made mainly by writing great thoughts in the privacy of their garrets. As time went on, the pleasure of power and influence became such that to do this sort of job successfully one had to be secretary and a research assistant become as valuable and necessary tools of the trade as a typewriter or dictaphone; and nowadays, when the Department of Energy statistically shows a £50 million increase in its staff, the Bank of England Quarterly Review circulates free, I would add a bank-fund and a travel-fund to the set of necessary tools on the parat table.

But that is not all that is necessary. There needs to be a corps of serious quantitative academic work being published—I think particularly of my colleague Richard Bohn's work on energy demand and energy conservation—which provides both a benchmark for other academics, and a basis of factual understanding for those who do not compose the figures themselves.

Just as much serious macro-economic commentary would begin to appear in the absence of published, disciplined, regular, reasoned forecasts of the economy, so for instance my own views on energy matters would become rapidly vacuous without a regular diet of factual analysis and comment with colleagues who are actually working on the figures daily.

From a personal point of view it is ultimately the state's obligation of asking for more work to be done in the energy field, and if necessary more money to be provided to finance it.

The author is reader in economics at Cambridge University and formerly deputy chief economic adviser to the Treasury.

A century of France

France 1848-1945, Volume II, Intellectual, Taste and Anxiety by Theodore Zeldin

Volume one of this magnum opus, Ambition, Love and Politics, came out in 1973. Now that volume two has appeared...

The text runs to almost 2,000 pages. It is so packed with facts and statistics that one can only read it slowly, pen in hand. The presentation is utterly plain...



A remarkable child of France: Marcel Proust (right) with his brother Robert.

synchroic truth of France, spread over these hundred years, a truth stronger than the diachronic variety...

Certainly, in literary history, the only area in which I can claim a degree of competence, is in fiction to work out a succession of different "chimeras" between 1848 and 1945...

associated with happiness, and even extends far beyond the work itself. Why try to create a framework with such fluid concepts?

After discussing these questions in articles, let me rapidly confess to a list of reservations, hesitations, and appreciations. Sometimes facts are included without being fully understood...

that Zeldin is the sort of historian who writes in a style of realistic detail in his schematisation. "Historians imagine that the main interest of history is to tell the general that the variety of human nature is found in analysis and beyond...

The benefits of this approach are obvious. Zeldin can say again and again that the concept of La bourgeoisie is so vague and self-defeating as to be virtually useless as an intellectual tool...

However, this microscopic moment, in spite of its virtues, tends to hark again to my main objection. It is to be sure that the French of the Third Republic are not the same as the French of the Second Empire...

La belle époque

France 1870-1914: The Society of Psychiatry in the Soviet Union by R. D. Anderson

This admirable book by R. D. Anderson is not so much an original work of research as a scholarly analysis of the work of other authors...

It would be wise to assume that psychiatrists in this country or profession are not so much concerned by the accusations of psychiatric abuse from the Soviet Union as they are by the accusations of psychiatric abuse from the United States...

John Weighman R. E. M. Irving

Diagnosing a scandal

The Political Hospitals: The Society of Psychiatry in the Soviet Union by Sidney Bloch and Peter Reddaway

because psychiatric abuses do not occur in other countries. It is because they can be detected in the present, to they occur as a part of a deliberate expression of government policy.

Malcolm Lader's book takes a particular look at those aspects of psychiatric theory and practice which render it especially sensitive to abuse, both of willful and an accidental kind. He faces the fact that psychiatrists do disagree about the diagnosis of schizophrenia...

Anthony Clare

The news that's fit to print

Order News: An Analysis of News Reporting in the British Press

by G. Chilton

price £8.00 and £3.50

Our book on crime reporting reminds me of an evening spent in New York at a conference on deviance in which we were in the bar...

Welfare wrongs

Immigration and Social Policy in Britain by Catherine Jones

This is an ambitious book. By tracing the experiences of the three most notable groups of migrants to Britain, the Irish, the Jews and the natives of the New Commonwealth...

These themes are discussed in a review of social policy development in Britain. This is the least successful section of the book and Miss Jones's nervousness at attempting such a broad sweep to so short a space is revealed by the frequent use of "perhaps", "may or may not" and "arguably".

Juliet Cheetham

Welfare wrongs

Immigration and Social Policy in Britain by Catherine Jones

services are jealously prized public property there are many different voices claiming the right to define their ends and means. When a welfare state has promised more than it can deliver, in the absence of alternative routes to salvation its principles will be fiercely defended. Any departure or modification cannot safely be associated with the needs of a distinctive minority, regarded by many as alien, even though its interests may coincide with those of other groups.

Laurie Taylor

BARBICAN BUSINESS BOOK CENTRE Specialist Booksellers and Library Suppliers to institutes of Learning and Higher Education

BOOKS

A distinctive idiom

Cleanness edited by J. J. Anderson... Manchester University Press, £8.50

Anderson's Cleanness, which I discussed briefly (THES, March 4) in its earlier form...

Anderson's notes add enormously to our understanding of the poet's extremely difficult language. It would be impossible to mention here even a fair selection of his many ingenious and convincing interpretations...

On the other hand the explanation of *epitheton* (643) as "qualified in prayer" seems unlikely because of the difficulty of serving a picnic in this posture...

idiom is bound to affect his task as editor and commentator. Thus the interpretation of *epitheton* (76) simply as "pagan wilderness" surely neglects the suggestion of "middle ground" connected with the common idea that under the New Law the gentiles became gentilemen...

English Verse 1300-1500 is the first of a series of volumes, the Longman Annotated Anthologies of English Verse, under the general editorship of Alastair Fowler. The period it covers may well be the most difficult to anthologize, both because so much of the finest medieval verse consists of poems too long to be included completely...

Scottish poetry is included too. Henryson is appropriately reorganized as one of the outstanding writers of the period, with 39 poems. The final section appears as less than his best through the inclusion of 150 lines of the tediously immature *Twa Marit Wemen* and the *Wedo* and the exclusion of the curiously allegorical, in general, though, the choice is apt even when most un-

conventional. The absence of the alliterative *Morte Arthure* may seem surprising; but then surely this much-praised epic, for all its verbal richness, is the product of a court sensibility. Metrical romance is absent, except for *Sir Orfeo*; and, if that makes the anthology less representative in terms of genre, it implies a proper response in terms of literary value.

It is scarcely possible to draw a firm boundary between "editorial commentary" and "critical reading". Anderson stops short of any consideration of such tricky problems; but his achievement is truly impressive, and this book should immediately take its place alongside his earlier *Poetice* as the standard edition of a major poet.

This aspect of the volume, undiminished though it is in itself, does of course raise the question of whose purposes will be served by its existence of all. Will not anyone who is likely to read half of *Winter and Summer* also read the other half? This anthology is not for beginners, who would need more by way of introduction to the texts and indeed to the whole period; and it is not very likely to be used by more casual collectors. It would be sold indeed if such skill and learning were to be wasted on a misconceived venture. Such questions must have been considered by the publishers, and my final comment is addressed to them. The pages of *English Verse 1300-1500* are extraordinarily unattractive. They are excessively crowded, and the eye is bruised by a jumble of different typefaces. There must inevitably have been a conflict between elegance and economy; economy has evidently won hands-down. Since half of each page, on average, is taken up with ornamentation, it might have been preferable to print notes and glosses on separate pages facing the text; that would have produced a less repulsive visual effect. Three cheers for Murray; one for Longman.

A. C. Spearing

Commonplace or abstruse

A Dictionary of Literary Terms by J. A. Cuddon... Deutsch, £11.50

J. A. Cuddon. Introduces his Dictionary of Literary Terms to us modestly enough by associating himself with a great tradition of dictionary-makers. "It is not," he tells us, "until you actually undertake the task of making a dictionary that you fully appreciate the implications of Dr Johnson's definition of the lexicographer as a 'harmless drudge'". Later in his preface he further affirms that "the raison d'être of a dictionary... is to provide information... by its common sense, by its brevity, by its clarity, by its balance between the scientific (AGROSTIC) and the human (CUL VOLDING) both the commonplaces and the abstruses, to inform, to find much that is valuable, to inform in a provocative manner among the multitudinous entries."

ovo to second place. Like Du Maurier's famous ecclesiastical egg, however, it must be admitted that Cuddon's book is excellent only in parts. It is not the first in the field (to some extent it overlaps with the Oxford Companion) and neither Beckett and Gatz's Reader's Guide to Literary Terms, but it is certainly the most substantial.

At a times, I have allowed my prejudices and opinions a fairly free rein. Cuddon tells us in his preface that he sets himself in an honourably Johnsonian tradition, but it is one that has otherwise tended to lapse. One welcomes the use of examples to aid definition, but personal tastes seem less in evidence here than in the definitions themselves, and especially in the examples. The South American and Latin American literature is proportionately by comparison with the Poles, or even the Hebrews, and comprehensive entries on the topic or the novel are counter-indicated by the author's insistence on "literary ideas of his own, like his neologism 'verbo-craps' and his awful and unnecessary examples of a 'shaggy dog story' and a 'synchro rhyme'." I would question

his inclusion of Crabtree's Peter Grimy and Browning's "Soldier in a Spanish Cloister" under the heading of "sick verse", and the entry on "tradition" is rather more simply questionable than that provided by the dictionary.

The dictionary has real merits, however, for it manages to be witty as well as full, and its sometimes irritating catalogues of books will, for some readers at least, help to make definitions concrete. Finally, one could have wished that the "harmless drudge" had been in a while done his homework better and had attended more to the drudgery of proof-reading. The Latin terminology in this context, for instance, does not mean "avoiding the use of words and only by specifying social and family connections could one call *Blowerwood* a member of the *Bloomerwood* Group. *Blowerwood* and *Bloomerwood* are respectively misreadings of Robert Gellat and O'Neil (both with a frequency), and elsewhere *Guides* *Blaze*, *across* *Tatt*, *Fusilli*, *Mexique* *Boy*.

Andrew Sanders

Among this week's reviewers

Dr R. E. M. Irving is lecturer in politics at Emmanuel College, Cambridge and author of *Christian Democracy in France*. Dr Gavin Kennedy is senior lecturer in economics at Strathclyde University, Glasgow. Andrew Sanders is lecturer in English at Birkbeck College, London. Dr K. Brewer has been elected to Emmanuel College, Cambridge. Cheatham is lecturer in social studies at Oxford and also at the Commission for Equality. Thony Clare works at the Hospital and is author of *In Dissent*.

A. C. Spearing is lecturer in English at Cambridge and author of *Coleridge and Medieval Poetry*. Laurie Taylor is professor of sociology at York University. John Weightman is professor of English at Westfield College, London.

Visionary inwardness

William Wordsworth, Poems, vol 1 and 2 edited by John O. Hayden... Penguin, £3.75 each

Many years ago my first copy of Wordsworth's poems fell to pieces through use, and recently the copy I replaced it with has begun to do the same. Others will have had a like experience, but they will not be the only ones to welcome this edition which, though paperback, is stoutly bound and may last even the enthusiast a good while. Certainly no edition will reach these days of a teacher's pocket (offers the same: it is much more extensive than Derek Roper's useful edition, reprinted last year, by Macdonald and Evans, of the notes, though usually shorter, are more succinct and seldom leave out much that Roper put in. It quite displaces Philip Wayne's 1935 *Everyman* volume, because the main introductory prose is included (it is perhaps a pity that the deeply thought out *Essays on Epitaphs* is not), the early poems are fully represented, and the notes are altogether fuller, and the poems appear in a most scholarly order.

Needless to say, Professor Hayden lacks space for discussion of the sequence he adopts, but to reread the poems in consecutive order is a major experience. This

Collected works

Essays and Papers by A. N. L. Munby edited with an Introduction, by Nicolas Barker... The Scolar Press, £11.00

The danger of this book is equalled only by its charm, wit and learning, but the danger is the most delicious of all. Here, available again in print, is that classic essay "Harriet Hillhouse" from the *New Statesman* of 1952, with its theme "that book collecting is first and foremost an incomparably exciting sport". It may be one whose pulse beats faster at the sight of a second-hand bookseller's catalogue—once seen, the first envelope to be opened, the hand then poised over the telephone—then you run a severe risk of being further infected with your frenzy, of enjoying your madness even to the degree of self-justification, and of finding this the best book of the season.

It is learned, detailed, amusing, sometimes highly technical, but above all, humane, with a very recognition of human passion and indignity. It is, however, almost a relief to know that even the great and wise irritating catalogues of books will, for some readers at least, help to make definitions concrete. Finally, one could have wished that the "harmless drudge" had been in a while done his homework better and had attended more to the drudgery of proof-reading. The Latin terminology in this context, for instance, does not mean "avoiding the use of words and only by specifying social and family connections could one call *Blowerwood* a member of the *Bloomerwood* Group. *Blowerwood* and *Bloomerwood* are respectively misreadings of Robert Gellat and O'Neil (both with a frequency), and elsewhere *Guides* *Blaze*, *across* *Tatt*, *Fusilli*, *Mexique* *Boy*.

Book-collecting is not the mere buylog of books to read (a delusion under which I, alas, suffered for 20 years, to my present loss and despair, unless it is self-torture). The collector should be interested in the contents, but he need not read them. (Some books are too precious to be read. A bookseller once restrained me from opening his first edition of *Pride and Prejudice*—

its not an account of a little-known poem by the author, but a collection of his other works, including *The Rake's Progress* or the 1802 "Beggar's Opera" which remained until the mid-19th century. Rather, it is the major work of the author, Wordsworth's known poems, which he has collected in this volume. It is a pity that the deeply thought out *Essays on Epitaphs* is not, the early poems are fully represented, and the notes are altogether fuller, and the poems appear in a most scholarly order.

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Types of technology

Technology and Underdevelopment edited by Frances Stewart... Duckworth, £12.00

technology itself substantially determined by the researchers of the rich world—is a requirement for a change in relative prices. Surely, if anybody "determines" modern rural technology, it is not the western multinational, nor the allegedly sovereign and price-setting consumer of products or techniques, but rather the poor country's own urban elite? As for the longer run, does not the history of biology suggest that great basic science (such as Mendel's) may determine the history of agriculture, largely independent of western multinationals, Asian or African pressure politics, and price signals alike?

Certainly the wide range of choice within existing technology (however unsatisfactory), revealed by Mrs Stewart's excellent review of the empirical material, seems to justify the economists who have emphasized the determinants of such choice. Mrs Stewart, in places, seems to deny that this is an important issue, possibly because tendencies to large scale might render the labour-intensive methods inappropriate. Yet in agriculture—which engages 70 per cent of the world's workers—such tendencies are dubious.

For Mrs Stewart, new techniques are research in conjunction with new products, and drive out old techniques and old products alike, because the huge research inputs tend to be large-scale and indivisible; and to produce increasingly luxurious goods. So poor people in poor countries, while gaining from the extra efficiency, find that the new (and irreversible) technology harms employment and income distribution alike.

For much of the economy, the idea of new technology as an indivisible package embracing both inputs and outputs, is convincing; but not for agriculture. New techniques—improved seeds, tubewell irrigation, phosphate fertilizer—can be used, separately or together, for old crops or new; poor farmers (or even villages) can cut what they grow, expanding the need in shift production to new markets; and new old techniques can be, and often are, used within tiny plots. Even some products (not mainly by the well-off in poor countries—mainly green vegetables—can often be grown labour-intensively by small farmers.

The book contains telling evidence of the link between decreasing appropriateness of technology and rising unemployment. In Puerto Rico had been using 1963 technology in 1953, employment would have been 40 per cent higher. The investment required per job trebled from 1950 to 1965 "ringtones" of technology—and jobs per unit of output were halved.

"Atomized technologies" seldom help. The equipment and skills to produce western products of 1800 or even 1900 are usually absent. However, so far, little effort has been devoted to evolving techniques suitable for small-scale units; though where attempted the success has been limited. Meanwhile the prevalence of inappropriate technology in the modern sector uses up too much scarce savings to leave enough for rural areas—and makes a mockery of the investment required per job trebled from 1950 to 1965 "ringtones" of technology—and jobs per unit of output were halved.

This book is fine reading, most accomplished and scholarly, and it is a pity that the author's own review is so long, and that the book is so expensive. It is a pity that the author's own review is so long, and that the book is so expensive. It is a pity that the author's own review is so long, and that the book is so expensive.

BOOKS

Rich and poor

Trade and Developing Countries edited by Kathryn Moran and Peter Croom Helm... Croom Helm, £9.95 and £4.50

A few years ago the so-called Great Revolution was heralded as a major breakthrough in the economic problems of many developing countries. Like that for foreign aid before it, much of the optimism was misplaced. The economic problems of much of the world remain as intractable as ever. We are now well into another "solution": the New International Economic Order (NIEO).

With the NIEO the intention is to effect the transfer of resources to the developing world by raising the prices of exports to the industrialized countries above costs of production and so-called "world prices" in the commodity markets. The "surplus" above world price will finance development. The most obvious example of what the NIEO means can be seen in the dramatic rise in oil prices under the OPEC cartel. This example has been so clear to both sides that the poor countries wish to emulate it and the rich countries wish to avoid it, at least, minimize its impact.

As with all policy proposals it is necessary to begin with a great deal of information and informed comment on the issues before deciding either on their relevance or on their practicability. Moran and Helm, backed with extensive evidence, including financial implications. Their conclusion that greater participation in world trade is one route to development, among others, is sound. Whether the world takes it is, of course, another matter.

Gavin Kennedy

Living With Capitalism

Class Relations and the Modern Factory THEO NICHOLS and HUW BEYNON

Here is a picture of a giant British chemical complex, "Chemco", unveiled after three years' first-hand study by two sociologists. We are vividly reminded of how remote we multinationals and theorists are from life as it really is at the factory floor. This book leaves a nagging realisation of the way modern industry monopolises so many of its workers, wastes their skills, and alienates them from the products they run our economy. —Barbara Castle, *Guardian* £5.75, paper £2.75

Collective Bargaining

What you always wanted to know about Trade Unions and never dare to ask CLIVE JENKINS and BARRIE SHERMAN

Written by two well-known and active trade unionists—Clive Jenkins is General Secretary and Barrie Sherman is Director of Research at ASTMS—this book should become essential reading for all trade unionists and will do much to interest non-unionists in a major issue of today—collective bargaining. £5.50, paper £1.95

Puritan, Paranoid,

Remissive

A Sociology of Modern Culture JOHN CARROLL

Western society has been transformed in the twentieth century; John Carroll questions assumptions of current sociological fashion and considers a deeper level of historical cause. He proposes three character types or patterns of psychological disposition to influence respectively the "Puritan" past that is winning, the "Paranoid" past that has exemplified the society's crisis of transition, and the "Remissive" future, whose ideology already permeates our present. £3.95

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OVERSEAS TEACHING POSTS LECTOR IN ENGLISH For Special Purposes (Yugoslavia) UNIVERSITY OF LJUBLJANA To teach Technical English to University students of Science and Technology. Degree and TEFL qualification essential. Post-graduate qualification in Linguistics desirable. The candidate should have an interest in or experience of materials production or ESP. Recording experience would be an advantage. Preferred age range 25-35. Salary: 6,000 new dinars per month (present rate of exchange £1 equals ND31). This salary is non-convertible. Additionally an annual subsidy of £1,244 paid by the British Council in the UK. Benefits: free medical service, employer's portion of superannuation, 1 year contract, renewable. 77 RU 48

UNIVERSITY OF CAPE TOWN (1) Lecturer in Sociology Applications are invited for the above post, vacant as from 1st September, will be filled on the salary scale R3,300 + R100 per annum, plus a pensionable allowance of 10% of basic salary. Individual requirements for the post are a Master's Degree or its equivalent and a specialty in some aspect of sociology. Applicants for the post should submit a curriculum vitae, stating present salary, research interests and publications, which will be appointed, and the names and addresses of three referees. Memoranda concerning the position and further information should be obtained from the Registrar, Room 1, University of Cape Town Private Bag AA, Rondebosch 7700, South Africa. If your application must be received not later than 30th September, 1977.

UNIVERSITY OF LONDON GOLDSMITHS' COLLEGE Registrar It is hoped that the successful applicant will be able to take up duty with effect from January 1, 1978, or as soon as possible thereafter. The total salary of the Registrar is at present £10,971 p.a. Further particulars of the post can be obtained from the Personnel Officer, to whom applications should be made by September 30, 1977.

UNIVERSITY OF THE WEST INDIES JAMAICA Applications are invited for the post of LECTURER IN MARINE LABORATORIES. The successful applicant will be expected to teach and supervise the work of students in the field of marine biology and related subjects. The applicant should have a Ph.D. in Marine Biology or a related subject and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of marine biology and related subjects. The applicant should have a Ph.D. in Marine Biology or a related subject and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of marine biology and related subjects. The applicant should have a Ph.D. in Marine Biology or a related subject and should have had at least two years' post-graduate experience in the field.

UNIVERSITY OF TASMANIA LECTURER IN JAPANESE Candidates should have completed a higher degree in Japanese Language and Literature and be primarily interested in teaching. Applications should be sent to the Registrar, University of Tasmania, Hobart, Tasmania, 7000, by September 15, 1977.

UNIVERSITY OF NAIROBI KENYA Applications are invited for the post of LECTURER IN CHEMISTRY. The successful applicant will be expected to teach and supervise the work of students in the field of chemistry. The applicant should have a Ph.D. in Chemistry and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of chemistry. The applicant should have a Ph.D. in Chemistry and should have had at least two years' post-graduate experience in the field.

AUSTRALIA Applications are invited for the post of LECTURER IN CHEMISTRY. The successful applicant will be expected to teach and supervise the work of students in the field of chemistry. The applicant should have a Ph.D. in Chemistry and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of chemistry. The applicant should have a Ph.D. in Chemistry and should have had at least two years' post-graduate experience in the field.

UNIVERSITY OF SYDNEY LECTURER IN MALAYSIAN STUDIES Applications are invited for the post of LECTURER IN MALAYSIAN STUDIES. The successful applicant will be expected to teach and supervise the work of students in the field of Malaysian studies. The applicant should have a Ph.D. in Malaysian Studies and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of Malaysian studies. The applicant should have a Ph.D. in Malaysian Studies and should have had at least two years' post-graduate experience in the field.

UNIVERSITY OF QUEENSLAND READER IN COMPUTER SCIENCE Applications are invited for the post of READER IN COMPUTER SCIENCE. The successful applicant will be expected to teach and supervise the work of students in the field of computer science. The applicant should have a Ph.D. in Computer Science and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of computer science. The applicant should have a Ph.D. in Computer Science and should have had at least two years' post-graduate experience in the field.

UNIVERSITY OF TASMANIA SENIOR LECTURER/LECTURER IN PSYCHOLOGY Applications are invited for the post of SENIOR LECTURER/LECTURER IN PSYCHOLOGY. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field.

Management Teaching Posts The University of Aston Management Centre, already well established as one of the largest management schools in Western Europe, continues to grow and has several additional posts to fill. The Centre's six subject groups provide the teaching staff of undergraduate, postgraduate and professional level. This year there are over 2,000 applications for the 150 places in the undergraduate course in Management and Administrative Studies, and last year the post-graduate programme had over 300 students. The post-graduate activity covered some 50 courses for industry, commerce and the public sector. The University offers B.A. Honours undergraduate courses in Business Administration, Business Studies, Business Management, Business Administration and Business Studies. The School of Social Inquiry provides postgraduate study in the field of psychology. Applied Psychology, Social and Political Theory, History and Economics. NOT: The applicant may be required to participate in courses offered externally. Salary Range: Senior Lecturer, £16,200 to £22,500; Lecturer, £14,340 to £18,000. Applications should be sent to the Registrar, University of Aston, Birmingham, B4 7ET, by September 15, 1977.

UNIVERSITY OF TASMANIA SENIOR LECTURER IN ORGANISATIONAL BEHAVIOUR Candidates should have a post-graduate degree in psychology, business studies or related fields. The successful applicant will be expected to teach and supervise the work of students in the field of organisational behaviour. The applicant should have a Ph.D. in Organisational Behaviour and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of organisational behaviour. The applicant should have a Ph.D. in Organisational Behaviour and should have had at least two years' post-graduate experience in the field.

UNIVERSITY OF TASMANIA LECTURER IN FINANCE/ACCOUNTING Applications are invited for the post of LECTURER IN FINANCE/ACCOUNTING. The successful applicant will be expected to teach and supervise the work of students in the field of finance/accounting. The applicant should have a Ph.D. in Finance/Accounting and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of finance/accounting. The applicant should have a Ph.D. in Finance/Accounting and should have had at least two years' post-graduate experience in the field.

THE UNIVERSITY OF ASTON MANAGEMENT CENTRE Applications are invited for the post of SENIOR LECTURER/LECTURER IN PSYCHOLOGY. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field.

UNIVERSITY OF SYDNEY THE COMMITTEE FOR POSTGRADUATE STUDIES IN THE DEPARTMENT OF LAW SCOLARSHIPS Applications are invited for the above mentioned awards which are valued at \$4,000 per annum and are for higher degree study in the Faculty of Law of the University of Sydney or in another institution. Applications close on 30 November 1977 with the Registrar, University of Sydney, N.S.W. 2006. Further information and application forms may be obtained from the Registrar.

Lincoln College Oxford OX1 3DR The College proposes to elect an Official Fellow and Tutor in Law with effect from October 1, 1978. The Fellowship, which is open to candidates of both sexes, will be associated with a C.U.F. Lectureship. Applications giving particulars of qualifications and experience should be sent to the Registrar, Lincoln College, Oxford OX1 3DR, from whom further particulars may be obtained.

UNIVERSITY OF WALES DEPARTMENT OF CIVIL ENGINEERING AND BUILDING TECHNOLOGY DEMONSTRATOR (expected to work for Ph.D.) In the field of geotechnical engineering, experience of Messier's degree in soil/rock mechanics required. Salary: £2,904 to £3,118 p.a. Requests (quoting Ref. THES) for details and application form to: Personnel Section (Academic) UWIST, Cardiff CF1 3NU. Closing date: 30 Sept. 1977.

Administrative Assistant Graduates (aged up to 32) required to assist the Dean of Admissions. Must be able to work on own initiative and to type. Other secretarial skills would be an advantage. Salary according to age and experience. US\$ Closing date for applications: 30th September. Particulars from: The Registrar, University College at Buckingham, Hutter Street, Buckingham, MK18 1EG. University College at Buckingham supported by the Independent University Trust.

AUSTRALIA UNIVERSITY OF NEW SOUTH WALES Applications are invited for the post of LECTURER IN CHEMISTRY. The successful applicant will be expected to teach and supervise the work of students in the field of chemistry. The applicant should have a Ph.D. in Chemistry and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of chemistry. The applicant should have a Ph.D. in Chemistry and should have had at least two years' post-graduate experience in the field.

UNIVERSITY OF MELBOURNE DEPUTY VICE-CHANCELLOR The University is seeking a person of high academic standing to fill the post of Deputy Vice-Chancellor. The successful applicant will be expected to assist the Vice-Chancellor in the management of the University. The applicant should have a Ph.D. and should have had at least ten years' post-graduate experience in the field of higher education. The successful applicant will be expected to assist the Vice-Chancellor in the management of the University. The applicant should have a Ph.D. and should have had at least ten years' post-graduate experience in the field of higher education.

HIRINGHAM TIL UNIVERSITY SUANSPERRE INSTITUTE Applications are invited for the post of LECTURER IN CHEMISTRY. The successful applicant will be expected to teach and supervise the work of students in the field of chemistry. The applicant should have a Ph.D. in Chemistry and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of chemistry. The applicant should have a Ph.D. in Chemistry and should have had at least two years' post-graduate experience in the field.

UNIVERSITY OF BRISTOL Applications are invited for the post of SENIOR LECTURER/LECTURER IN PSYCHOLOGY. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field.

BRISTOL THE UNIVERSITY OF BRISTOL Applications are invited for the post of SENIOR LECTURER/LECTURER IN PSYCHOLOGY. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field.

LONDON VICTORIA UNIVERSITY OF THE ANTIQUARIAN ASSISTANT EDITOR Applications are invited for the post of ASSISTANT EDITOR. The successful applicant will be expected to assist the Editor in the management of the journal. The applicant should have a Ph.D. and should have had at least two years' post-graduate experience in the field of antiquarian studies. The successful applicant will be expected to assist the Editor in the management of the journal. The applicant should have a Ph.D. and should have had at least two years' post-graduate experience in the field of antiquarian studies.

SPECIAL BOOK NUMBERS Special numbers planned for this autumn include: Maths/Physics Sept. 30 English Oct. 14 Linguistics Oct. 28 Biology Nov. 4 Publishers wishing to advertise in these issues should contact John Ladbrook on 01-837 1234 as soon as possible. The Times Higher Education Supplement

MURDOCH UNIVERSITY Perth, Western Australia Applications are invited for the post of SENIOR LECTURER/LECTURER IN PSYCHOLOGY. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field.

CANTERBURY UNIVERSITY OF HUMAN SCIENCES Applications are invited for the post of SENIOR LECTURER/LECTURER IN PSYCHOLOGY. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field.

BRADFORD THE UNIVERSITY OF BRADFORD Applications are invited for the post of SENIOR LECTURER/LECTURER IN PSYCHOLOGY. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field.

UNIVERSITY OF BRISTOL Applications are invited for the post of SENIOR LECTURER/LECTURER IN PSYCHOLOGY. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field.

DURHAM THE UNIVERSITY OF DURHAM Applications are invited for the post of SENIOR LECTURER/LECTURER IN PSYCHOLOGY. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field.

BRISTOL THE UNIVERSITY OF BRISTOL Applications are invited for the post of SENIOR LECTURER/LECTURER IN PSYCHOLOGY. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field. The successful applicant will be expected to teach and supervise the work of students in the field of psychology. The applicant should have a Ph.D. in Psychology and should have had at least two years' post-graduate experience in the field.

Appointments continued

EDINBURGH UNIVERSITY DEPARTMENT OF ANATOMY AND PHYSIOLOGY

Applications are invited for a post of Lecturer in Anatomy and Physiology...

EDINBURGH UNIVERSITY DEPARTMENT OF EXTRA-MURAL STUDIES

Applications are invited for a post of Lecturer in charge of the Department of Extra-mural Studies...

Further particulars may be obtained from the Director of Extra-mural Studies, Edinburgh University...

LANCASTER THE UNIVERSITY DEPARTMENT OF INDUSTRIAL RESEARCH

Two Lectureships are available in the Department of Industrial Research...

LANCASTER THE UNIVERSITY DEPARTMENT OF ECONOMIC RESEARCH

Applications are invited for a post of Lecturer in Economic Research...

LANCASTER THE UNIVERSITY DEPARTMENT OF ECONOMIC RESEARCH

Applications are invited for a post of Lecturer in Economic Research...

MANCHESTER THE UNIVERSITY MANCHESTER BUSINESS SCHOOL

Lectureships in Creativity, Innovation and Entrepreneurship...

MANCHESTER THE UNIVERSITY DEPARTMENT OF ELECTRICAL ENGINEERING

Applications are invited for a post of Lecturer in Electrical Engineering...

MANCHESTER THE UNIVERSITY DEPARTMENT OF ELECTRICAL ENGINEERING

Applications are invited for a post of Lecturer in Electrical Engineering...

MANCHESTER THE UNIVERSITY DEPARTMENT OF CHEMISTRY

Applications are invited for a post of Lecturer in Chemistry...

MANCHESTER THE UNIVERSITY DEPARTMENT OF CHEMISTRY

Applications are invited for a post of Lecturer in Chemistry...

Further particulars may be obtained from the Director of Extra-mural Studies...

LANCASTER THE UNIVERSITY DEPARTMENT OF ECONOMIC RESEARCH

Applications are invited for a post of Lecturer in Economic Research...

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LANCASTER THE UNIVERSITY DEPARTMENT OF ECONOMIC RESEARCH

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MANCHESTER THE UNIVERSITY MANCHESTER BUSINESS SCHOOL

Lectureships in Creativity, Innovation and Entrepreneurship...

MANCHESTER THE UNIVERSITY DEPARTMENT OF ELECTRICAL ENGINEERING

Applications are invited for a post of Lecturer in Electrical Engineering...

MANCHESTER THE UNIVERSITY DEPARTMENT OF ELECTRICAL ENGINEERING

Applications are invited for a post of Lecturer in Electrical Engineering...

Polytechnics

oxford polytechnic

Faculty of Architecture and Planning Academic Post Above Reader (History of Architecture)

This post is at the level of a head of department (Grade VI), and responsibilities will include the organization of all historical studies...

Lecturer—Senior Lecturer in Architecture (Rehabilitation & Urban Design)

Applicants should be qualified architects, preferably with previous experience both in teaching and in the practice of urban renewal...

Further particulars and application forms may be obtained from the Director of Extra-mural Studies...

LANCASTER THE UNIVERSITY DEPARTMENT OF ECONOMIC RESEARCH

Applications are invited for a post of Lecturer in Economic Research...

LANCASTER THE UNIVERSITY DEPARTMENT OF ECONOMIC RESEARCH

Applications are invited for a post of Lecturer in Economic Research...

LANCASTER THE UNIVERSITY DEPARTMENT OF ECONOMIC RESEARCH

Applications are invited for a post of Lecturer in Economic Research...

MANCHESTER THE UNIVERSITY MANCHESTER BUSINESS SCHOOL

Lectureships in Creativity, Innovation and Entrepreneurship...

MANCHESTER THE UNIVERSITY DEPARTMENT OF ELECTRICAL ENGINEERING

Applications are invited for a post of Lecturer in Electrical Engineering...

MANCHESTER THE UNIVERSITY DEPARTMENT OF ELECTRICAL ENGINEERING

Applications are invited for a post of Lecturer in Electrical Engineering...

Leeds POLYTECHNIC

School of Architecture and Landscape PRINCIPAL LECTURER AND COURSE DIRECTOR IN LANDSCAPE ARCHITECTURE

Applications are invited for the post of Course Director for the degree and graduate diploma courses in Landscape Architecture.

Applicants should have both academic and professional qualifications in Landscape Architecture, together with proven experience of Landscape education and practice.

Applications are invited for the new post of SENIOR LECTURER IN ELECTRONICS AND COMMUNICATIONS ENGINEERING...

SENIOR LECTURER in Electrical Engineering with interests in Power, Installation and Computer Engineering.

LECTURER II/SENIOR LECTURER IN MARKETING STUDIES

Applicants should have appropriate academic qualifications and, preferably, teaching experience at both undergraduate and post-graduate levels.

Salary Scales: Principal Lecturer: £6,432-£7,134 (bar)-£8,070.

Senior Lecturer: £5,523-£6,447 (bar)-£8,808.

Lecturer II: £3,744-£5,985 (including supplements).

Details from: The Services Officer (MA.13) Leeds Polytechnic, Calverley Street, Leeds LS1 3HE.

Polytechnics continued

NEWCASTLE UPON TYNE POLYTECHNIC Chief Administrative Officer's Department SENIOR ASSISTANT (ACADEMIC)

To be responsible to the Academic Registrar for the administration of the Examinations/Registry Section...

Applications are invited for the post of SENIOR LECTURER IN ELECTRONICS AND COMMUNICATIONS ENGINEERING...

SENIOR LECTURER in Electrical Engineering with interests in Power, Installation and Computer Engineering.

LECTURER II/SENIOR LECTURER IN MARKETING STUDIES

Applicants should have appropriate academic qualifications and, preferably, teaching experience at both undergraduate and post-graduate levels.

Salary Scales: Principal Lecturer: £6,432-£7,134 (bar)-£8,070.

Senior Lecturer: £5,523-£6,447 (bar)-£8,808.

Lecturer II: £3,744-£5,985 (including supplements).

Details from: The Services Officer (MA.13) Leeds Polytechnic, Calverley Street, Leeds LS1 3HE.

LANCHESTER POLYTECHNIC Coventry-Rugby Faculty of Social Science LECTURER GRADE II IN SPANISH

With particular interest in the Culture, History and Society of 19th and 20th Century Spain.

Salary: £3,276-£5,483 plus £312 supplement plus April 1977 pay award.

For application form and further particulars please apply in writing enclosing a photocopy stamped and addressed envelope to the Assistant Secretary (Personnel), Lanchester Polytechnic, Priory Street, Coventry CV1 5FB.

Faculty of Humanities Head of the Department of Social Sciences

Salary scale, Head Grade V £7,366 to £9,274 plus supplements of £732 and £180 subject to Income Policy.

Applicants should have a proven, though not necessarily lengthy record of successful research, academic planning and teaching in Higher Education.

Application forms and further details may be obtained from the Personnel Officer, Sunderland Polytechnic, Chester Road, Sunderland SR1 3SD.

Teesside Polytechnic HEAD OF THE COMPUTER CENTRE (Grade V)

Applications are invited from good Honours Graduates with substantial computing and managerial experience.

The Centre's present main computer, an ICL 1905E, is due to be replaced shortly by a large new multi-processor system.

Application forms and further particulars may be obtained from the Personnel Officer, Teesside Polytechnic, Middlesbrough, TS1 3BA, Cleveland County.

THE POLYTECHNIC, HUDDERSFIELD DEPARTMENT OF HISTORY AND POLITICAL STUDIES LECTURER II in Politics

Candidates must be qualified to teach up to the final year of the Politics option on the BA (Hons) Humanities degree and other honours-degree courses.

Salary Scale: £3,744-£5,985 per annum.

Further details and application forms, which should be returned by Monday, 28th September, from the Establishment Office, The Polytechnic, Queensgate, Huddersfield, HD1 3DH.

THE POLYTECHNIC OF WALES POLITECHNIG CYMRU

Applications are invited for the post of DEPARTMENT OF BUSINESS STUDIES SENIOR LECTURER - LAW

The person appointed, who is expected to hold a good honours degree, must show experience of teaching law to degree level.

SALARY: £5,031-£5,955 (bar)—£6,417 + £492 salary supplement.

Please enclose large stamped addressed envelope for further particulars and application form returnable by 30th September, 1977, to: The Personnel Officer, The Polytechnic of Wales, Pontypridd, Mid. Glamorgan, Tel. No: Pontypridd 405133

NEWCASTLE UPON TYNE POLYTECHNIC Faculty of Education and Librarianship SENIOR LECTURER IN TECHNOLOGY FOR SCHOOLS

Required to initiate a wide range of in-service courses in technology and design, and to be fully involved in the development of all aspects of the Newcastle Solco and Technology Education Centre.

Applicants should have the intellectual and professional qualities and experience appropriate to working closely with schools, colleges and local industry.

Salary: £5,031-£5,955 (bar)—£6,417 + £492 p.a. salary supplement.

For further particulars and application forms, returnable by Friday, 23rd September, 1977, please send stamped addressed envelope to the Deputy Director of Education, Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne, NE1 8ST.

LONDON THE POLYTECHNIC OF CENTRAL LONDON SCHOOL OF EDUCATION DIVISION IN SCIENCE TECHNOLOGICAL RESEARCH IN INSTRUMENTATION

Applications are invited for a post of Lecturer in the Department of Technological Research in Instrumentation.

The successful candidate will join an expanding team teaching post-graduate Diploma and MSc programmes in the management of education staff within the education service.

Applicants should have the intellectual and professional qualities and experience appropriate to working closely with schools, colleges and local industry.

Salary: £5,031-£5,955 (bar)—£6,417 + £492 p.a. salary supplement.

For further particulars and application forms, returnable by Friday, 23rd September, 1977, please send stamped addressed envelope to the Deputy Director of Education, Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne, NE1 8ST.

THE POLYTECHNIC OF NORTH LONDON FACULTY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF OPERATIONAL RESEARCH

Applications are invited for a post of Lecturer in the Department of Operational Research.

The successful candidate will join an expanding team teaching post-graduate Diploma and MSc programmes in the management of education staff within the education service.

Applicants should have the intellectual and professional qualities and experience appropriate to working closely with schools, colleges and local industry.

Salary: £5,031-£5,955 (bar)—£6,417 + £492 p.a. salary supplement.

For further particulars and application forms, returnable by Friday, 23rd September, 1977, please send stamped addressed envelope to the Deputy Director of Education, Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne, NE1 8ST.

MANCHESTER THE POLYTECHNIC DEPARTMENT OF GENERAL ART AND DESIGN

Applications are invited for a post of Lecturer in the Department of General Art and Design.

The successful candidate will join an expanding team teaching post-graduate Diploma and MSc programmes in the management of education staff within the education service.

Applicants should have the intellectual and professional qualities and experience appropriate to working closely with schools, colleges and local industry.

Salary: £5,031-£5,955 (bar)—£6,417 + £492 p.a. salary supplement.

For further particulars and application forms, returnable by Friday, 23rd September, 1977, please send stamped addressed envelope to the Deputy Director of Education, Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne, NE1 8ST.

MANCHESTER THE POLYTECHNIC DEPARTMENT OF EDUCATION

Applications are invited for the post of SENIOR LECTURER - LAW

The person appointed, who is expected to hold a good honours degree, must show experience of teaching law to degree level.

SALARY: £5,031-£5,955 (bar)—£6,417 + £492 salary supplement.

Please enclose large stamped addressed envelope for further particulars and application form returnable by 30th September, 1977, to: The Personnel Officer, The Polytechnic of Wales, Pontypridd, Mid. Glamorgan, Tel. No: Pontypridd 405133

Colleges of Higher Education

HEREFORD AND WORCESTER (COUNTY OF) EDUCATION DEPARTMENT WORCESTER COLLEGE OF HIGHER EDUCATION

Applications are invited for the post of PRINCIPAL

which becomes vacant arising from the retirement of Mr E. G. Peirson, C.B.E., M.A., B.Sc.

Salary within the range appropriate for a Group 7 College under the Burnham F.E. Report (currently £10,572 to £11,082 plus Phase 2 supplement of £180).

Further details from the Clerk to the Governing Body, Worcester College of Higher Education, Henwick Grove, Worcester, to whom applications should be submitted by September 30, 1977.

CREWE-ALSAGER COLLEGE OF HIGHER EDUCATION SENIOR LECTURER/LECTURER IN QUANTITATIVE BUSINESS METHODS

Applications are invited from graduates with industrial experience in the Operational Research and Statistical Method applied to Business and Management.

Further details and application forms may be obtained from the Deputy Director of Education, Crewe-Alsager College of Higher Education, Alsager, Stoke-on-Trent ST7 2JL. Closing date for receipt of completed application forms 1st October, 1977.

EALING COLLEGE OF HIGHER EDUCATION ASSISTANT IN ECONOMICS

Required to work on a project investigating the economic effect of inflation on the maritime market.

Applicants should be economics graduates with some knowledge of statistical methods plus, ideally, some computing experience.

The post is tenable for one year, from 1st January, 1978. Salary: according to grade: £3,798 to £5,112 p.a. inc. of London weighting and salary supplement.

Application form and further details from the Chief Administrative Officer, Ealing College of Higher Education, St. Mary's Road, London W6 5RF. Closing date: 18th September, 1977.

MANCHESTER POLYTECHNIC LIBRARY JOINT DEPUTY LIBRARIAN AND HEAD OF READER SERVICES

Applications are invited from graduates with a minimum of two years' experience in a library or bookshop.

The successful candidate will be responsible for the day-to-day running of the library and for the provision of reader services.

Applicants should have a minimum of two years' experience in a library or bookshop.

Salary: £3,744-£5,985 per annum.

For further particulars and application forms, which should be returned by Monday, 28th September, from the Establishment Office, The Polytechnic, Queensgate, Huddersfield, HD1 3DH.

PRESTON POLYTECHNIC Library and Learning Resources Service

Applications are invited for the post of BUSINESS STUDIES AND LAW LIBRARIAN

Burnham Lecturer II Grade Appointment £3,744-£5,985 (inclusive of supplements)

Application forms and further particulars may be obtained from the Chief Administrative Officer (Staffing), Corporation Street, Preston PR1 2TG.

Completed applications to be returned by 28th September 1977.

Middlesex Polytechnic

THE POLYTECHNIC, HUDDERSFIELD DEPARTMENT OF MARKETING STUDIES LECTURER II/ SENIOR LECTURER

Good honours graduates or equally qualified persons are invited to apply to join a staff of marketing specialists who teach on degree courses in Retail Marketing, Marketing (Engineering) and Business Studies as well as the Diploma in Marketing Studies.

Salary: £3,744-£5,985 per annum, S.A.L. £6,523-£8,447 (bar)—£8,808 per annum.

Further details and application forms, which should be returned by 28th September, 1977, from the Establishment Office, The Polytechnic, Queensgate, Huddersfield, HD1 3DH. (Telephone: 0484 22288, ext. 2228).

EALING COLLEGE OF HIGHER EDUCATION ASSISTANT IN ECONOMICS

Required to work on a project investigating the economic effect of inflation on the maritime market.

Applicants should be economics graduates with some knowledge of statistical methods plus, ideally, some computing experience.

The post is tenable for one year, from 1st January, 1978. Salary: according to grade: £3,798 to £5,112 p.a. inc. of London weighting and salary supplement.

Application form and further details from the Chief Administrative Officer, Ealing College of Higher Education, St. Mary's Road, London W6 5RF. Closing date: 18th September, 1977.

MANCHESTER POLYTECHNIC LIBRARY JOINT DEPUTY LIBRARIAN AND HEAD OF READER SERVICES

Applications are invited from graduates with a minimum of two years' experience in a library or bookshop.

The successful candidate will be responsible for the day-to-day running of the library and for the provision of reader services.

Applicants should have a minimum of two years' experience in a library or bookshop.

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For further particulars and application forms, which should be returned by Monday, 28th September, from the Establishment Office, The Polytechnic, Queensgate, Huddersfield, HD1 3DH.

Handwritten note: 0484 22288

Colleges of Further Education

Bournemouth and Poole College of Further Education

As a result of the amalgamation of the previously separate colleges at Bournemouth and Poole, two Head of Department vacancies occur on Sunham Grade IV, £6,750 to £7,632, plus £492 supplement per annum.

Colleges of Education

BOLTON COLLEGE OF EDUCATION (TECHNICAL) SENIOR LECTURER IN EDUCATION MANAGEMENT ADMINISTRATION

Applications are invited for the above post from persons with good academic qualifications in either Education Management or Educational Administration.

Courses

BRITISH POSTGRADUATE MEDICAL FEDERATION NEW COURSES

(University of London) TUTOR: JOHN HERON, Assistant Director (Medical Education). HUMANISTIC MEDICINE. On medicina and the whole person, 17 & 18 October, 1977, £18.

General Vacancies continued

ilea INNER LONDON EDUCATION AUTHORITY Staff Inspector of History and Social Sciences

Salary within range £9,182-£10,235 (Inclusive of London Weighting) with opportunity for progress to £11,177.

Details and application forms from the Education Officer (EO/Estab 2A/1) Addington Street Annex, The County Hall, London SE1 7PB.

TEACHERS OF EFL IN BRIGHTON

required immediately for short intensive courses for business and professional people. Applications are invited for permanent positions from teachers with a minimum of 2 years relevant experience.

Announcements

LONDON, W.1 Private College requires experienced teachers to give a course of 12 weeks in the evening.

MIDDLESEX

Lady will give French or Italian conversation classes in London.

SCOTTISH COLLEGE OF TEXTILES Department of Management Studies

LECTURER in ACCOUNTING (with Law)

Applications are invited from persons with an appropriate Honours Degree and/or professional qualification who will be required to lecture to SHND, Degree and Post-Degree level students.

Application forms available from Head of Department of Management Studies, Scottish College of Textiles, Glasgow, G11 7PB.

Dorset Institute of Higher Education and Dorset County Council Social Services Department Joint Appointment

Principal Lecturer in Social Work

Applications are invited for this post from persons with appropriate qualifications and experience.

Further details and application form from The Director, Dorset Institute of Higher Education, Walladown Road, Walladown BH12 5BB.

Research

LONDON, W.1

THE POLYMER OF ETHYLENE TEREPHTHALATE (PET) RESEARCH OFFICE. Applications are invited for an immediate temporary appointment to an I.C.R.C. sponsored research position.

SUSSEX

INSTITUTE OF DEVELOPMENT RESEARCH OFFICE. Applications are invited for an immediate temporary appointment to an I.C.R.C. sponsored research position.

University of Nottingham

SCHOOL OF EDUCATION

Degree of M.Ed. and M.Phil. Applications are invited from suitably qualified persons for the above courses available both part-time and full-time.

Colleges of Technology

CITY OF WAKEFIELD MULTIDISCIPLINARY DISTRICT EDUCATIONAL TECHNOLOGY CENTRE

LECTURER. Grade 6. Applications are invited from suitably qualified persons for the above course available both part-time and full-time.

Colleges and Institutes of Technology

DUNDEE COLLEGE OF TECHNOLOGY HEAD OF DEPARTMENT OF CIVIL ENGINEERING

The College is a Scottish central institution with a substantial and growing range of degree and diploma courses.

Announcements

UNIVERSITY OF SUSSEX Centre for Continuing Education

Conference for Teachers of English Literature at Sussex University, Brighton on SHAKESPEARE 16-18 SEPTEMBER 1977

General Vacancies

Royal Society of Arts SECRETARY TO THE EXAMINATIONS BOARD

Founded in 1754, the Royal Society of Arts operates as a liaison body in a wide field of applied arts and sciences.

ADVISER FOR FURTHER EDUCATION

27,644-28,268 (plus Salary Supplement) Candidate should possess an appropriate academic qualification and have had suitable experience of teaching in Further Education.

General Government conditions of service apply, including where appropriate, furniture removal expenses, storage costs, and lodging allowance.

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KELVIN GROVE COLLEGE OF ADVANCED EDUCATION Brisbane, Australia

LECTURER IN RESIDENTIAL CARE Ref. No. 77/A/14

This College is seeking a lecturer who will be involved in the training of residential care workers. Those students are being prepared to work in a variety of residential care facilities including those provided for the intellectually handicapped.

QUALIFICATIONS:

- 1. A degree (preferably at Masters level or higher) in social work or the social sciences with major studies in areas relevant to residential care.
2. Experience in a variety of residential settings including: (a) experience in planning and implementing changes in residential care, and (b) involvement in resident training programmes.

The appointment will be made within one of the following salary ranges in accordance with qualifications and experience. Lecturer II - \$14,345 - \$16,420 per annum. Lecturer I - \$16,809 - \$19,804 per annum.

Overseas

STURT COLLEGE OF ADVANCED EDUCATION

Situated within the metropolitan area of Adelaide, prepares students at tertiary level for the health and teaching professions.

SCHOOL OF HEALTH PROFESSIONS

Two Lecturer appointments, which may be negotiated either for a fixed term contract of two or three years or a tenurable position.

Lecturer to teach and supervise practical classes in Biological Sciences in the Diploma of Applied Science (Nursing) programme, and to assist with tutoring and practical classes in Applied Physical Science.

Lecturers in Engineering ALGERIA

For special teaching project of eight months commencing October/November with possibility of further assignment.

Universities continued

SOUTHAMPTON THE UNIVERSITY

DEPARTMENT OF ELECTRICAL ENGINEERING PIRELLA LECTURESHIP. Applications are invited for a temporary Lectureship in the Department of Electrical Engineering.

at job advertisements which might suit them, irrespective of how settled they are in their current position.

If you have a vacancy to fill, make sure you choose the THES, it could save you a lot of time, effort and money.

THE TIMES Higher Education SUPPLEMENT

Ref. No. 77/A/14